

# WEST Search History





DATE: Friday, December 03, 2004

<u>Hide?</u>	<u>Set Name</u>	<u>Query</u>	<u>Hit Count</u>
		<i>DB=PGPB; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L17	saxatilis not morone	6
		<i>DB=USOC; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L16	saxatilis not morone	0
		<i>DB=EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L15	saxatilis not morone	8
		<i>DB=USPT; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L14	l13 not morone	3
<input type="checkbox"/>	L13	saxatilis	19
<input type="checkbox"/>	L12	l10 same saxatilis	0
<input type="checkbox"/>	L11	l9 same L10	87
<input type="checkbox"/>	L10	venom	4399
<input type="checkbox"/>	L9	disintegrin	224
<input type="checkbox"/>	L8	saxatilis same (agkistrodon or gloydius)	0
		<i>DB=USOC,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L7	saxatilis same (agkistrodon or gloydius)	6
		<i>DB=PGPB; PLUR=YES; OP=ADJ</i>	
<input checked="" type="checkbox"/>	L4	saxatilis same (agkistrodon or gloydius)	0
<input type="checkbox"/>	L3	saxatilis same (agkistrodon or gloydius)	0
		<i>DB=USOC,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L2	saxatilis same (agkistrodon or gloydius)	0
		<i>DB=USPT; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L1	saxatilis same (agkistrodon or gloydius)	0

END OF SEARCH HISTORY

File 411:DIALINDEX(R) (c) 2004 The Dialog Corporation  
?sf allscience You have 254 files in your file list.

Your SELECT statement is:  
s saxatilis

Ref	Items	File
N1	2474	5: Biosis Previews(R)_1969-2004/Nov W3
N2	1739	185: Zoological Record Online(R) 1978-2004/Oct
N3	1613	440: Current Contents Search(R)_1990-2004/Dec 03
N4	1312	34: SciSearch(R) Cited Ref Sci_1990-2004/Nov W4
N5	869	144: Pascal_1973-2004/Nov W3
N6	804	50: CAB Abstracts_1972-2004/Oct
N7	696	399: CA SEARCH(R)_1967-2004/UD=14123
N8	542	71: ELSEVIER BIOBASE_1994-2004/Nov W3
N9	513	292: GEOBASE(TM)_1980-2004/Oct B3
N10	341	10: AGRICOLA_70-2004/Oct
N11	77 files have one or more items; file list includes 254 files.	

03dec04 12:34:35 User208600 Session D1649.2

SYSTEM:OS - DIALOG OneSearch

File 155:MEDLINE(R) 1951-2004/Nov W4 (c) format only 2004 The Dialog Corp.

File 5:Biosis Previews(R) 1969-2004/Nov W3 (c) 2004 BIOSIS

File 349:PCT FULLTEXT 1979-2002/UB=20041202,UT=20041125 (c) 2004 WIPO/Univento

Set	Items	Description
S1	53	SAXATILIS AND (VENOM OR TOXIN OR NEUROTOXI?)
S2	53	ID (sorted in duplicate order)
S3	2277	GLOYDIUS OR AGKISTRODON
S4	24	S2 AND S3
S5	24	ID (sorted in duplicate order)
S6	22	SAXATILIS AND S3 NOT S4

2/6/1 (Item 1 from file: 5) 012384294 BIOSIS NO.: 20000102607  
Acute toxicity of ammonia and nitrite to reciprocal cross hybrid striped bass Morone chrysops X M. saxatilis eggs and larvae 1999

2/6/2 (Item 2 from file: 5) 00011983572 BIOSIS NO.: 199900243232  
Acute toxicity of permethrin/piperonyl butoxide on hybrid striped bass 1999

2/6/3 (Item 3 from file: 155) 10891273 PMID: 11024495  
Biochemical characterization of a thrombin-like enzyme and a fibrinolytic serine protease from snake (Agkistrodon saxatilis ) venom . Apr 2001

2/6/4 (Item 4 from file: 5) 0012853923 BIOSIS NO.: 200100025762  
Biochemical characterization of a thrombin-like enzyme and a fibrinolytic serine protease from snake (Agkistrodon saxatilis ) venom 2001

2/6/5 (Item 5 from file: 5) 0010316658 BIOSIS NO.: 199598784491  
Blood plasma levels of sex steroid hormones and vitellogenin in striped bass (Morone saxatilis ) exposed to 3,3',4,4'-tetrachlorobiphenyl (TCB) 1996

2/6/6 (Item 6 from file: 5) 0001926937 BIOSIS NO.: 197662023096  
CLINICAL ANALYSIS ON VENOMOUS SNAKE BITES IN KOREA 1975

2/6/7 (Item 7 from file: 155) 06512337 PMID: 6426095  
Classification of Agkistrodon species in China. 1984

2/6/8 (Item 8 from file: 5) 0004282033 BIOSIS NO.: 198478017440  
CLASSIFICATION OF AGKISTRODON SPECIES IN CHINA 1984

2/6/9 (Item 9 from file: 5) 0014028191 BIOSIS NO.: 200200621702  
Consumption patterns and why people fish 2002

2/6/10 (Item 10 from file: 5) 0010527296 BIOSIS NO.: 199699161356  
Differential effects of breveloxin and beta-naphthoflavone on xenobiotic metabolizing enzymes in striped bass (Morone saxatilis )1996

Your SELECT statement is:

s saxatilis and (venom or toxin or neurotoxin)  
No files have one or more items; file list includes 254 files.

Your SELECT statement is:  
S SAXATILIS AND (VENOM OR TOXIN OR NEUROTOXI?)

Ref	Items	File
N1	34	5: Biosis Previews(R)_1969-2004/Nov W3
N2	14	440: Current Contents Search(R)_1990-2004/Dec 03
N3	13	349: PCT FULLTEXT_1979-2002/UB=20041202,UT=20041125
N4	8	399: CA SEARCH(R)_1967-2004/UD=14123
N5	8	654: US Pat Full_1976-2004/Nov 30
N6	7	185: Zoological Record Online(R) 1978-2004/Oct
N7	7	390: Belstein Facts_ July 2004
N8	6	155: MEDLINE(R)_1951-2004/Nov W4
N9	5	34: SciSearch(R) Cited Ref Sci_1990-2004/Nov W4
N10	5	73: EMBASE_1974-2004/Nov W4
N11	5	144: Pascal_1973-2004/Nov W3
N12	26 files have one or more items; file list includes 254 files.	

2/6/11 (Item 11 from file: 5) 0010123089 BIOSIS NO.: 199698590922

Dispersal and population expansion in a direct developing marine snail ( Littorina saxatilis ) following a severe population bottleneck 1995

2/6/12 (Item 12 from file: 5) 0003619559 BIOSIS NO.: 198274035982

EFFECT OF MICROBIAL VENOM PROTEINASE INHIBITORY SUBSTANCE ON SOME ENZYMES IN SNAKE VENOMS 1981

2/6/13 (Item 13 from file: 5) 004727438 BIOSIS NO.: 198580036333

EFFECTS OF VENOMS FROM KOREAN AGKISTRODON SNAKES ON BASIC HEVATOLOGIC FINDINGS IN MICE 1984

2/6/14 (Item 14 from file: 5) 0013539753 BIOSIS NO.: 200200133264

Effects of safinyl on aldcarb toxicity in juvenile rainbow trout ( Oncorhynchus mykiss ) and striped bass (Morone saxatilis X chrysops) 2001

2/6/15 (Item 15 from file: 5) 0002038118 BIOSIS NO.: 197713064110

EXPERIMENTAL STUDIES ON KOREAN SNAKE VENOMS 1976

2/6/16 (Item 16 from file: 5) 0014016425 BIOSIS NO.: 200200609936

Estrogenic responses of larval sunshine bass (Morone saxatilis X M. chrysops) exposed to New York city sewage effluent 2002

2/6/17 (Item 17 from file: 5) 0008791082 BIOSIS NO.: 199395093348

Fibrinolytic and coagulation activities of Korean snake venoms 1992

2/6/18 (Item 18 from file: 5) 0014108009 BIOSIS NO.: 200300066728

Fishing along the Clinch River arm of Watts Bar Reservoir adjacent to the Oak Ridge Reservation, Tennessee: Behavior, knowledge and risk perception. 2002

2/6/19 (Item 19 from file: 155) 13902001 PMID: 9601194

Fish lesions in the Chesapeake Bay: Plisteria-like dinoflagellates and other etiologies. May 1998

2/6/20 (Item 20 from file: 5) 0014161477 BIOSIS NO.: 200300130196

Fish tissue quality in the lower Mississippi River and health risks from fish consumption. 2003

2/6/21 (Item 21 from file: 5) 0012697242 BIOSIS NO.: 200000415555

Guthathione-dependent biotransformation of 1-chloro-2,4-dinitrobenzene in arterial and venous blood of the striped bass (Morone saxatilis)2000

2/6/22 (Item 22 from file: 5) 0007697089 BIOSIS NO.: 199191079980

HISTOPATHOLOGICAL OBSERVATIONS ON THE EFFECTS OF AGKISTRODON SNAKE VENOM IN ADRENAL GLANDS OF RAT 1990

2/6/23 (Item 23 from file: 5) 0005728810 BIOSIS NO.: 198784082959

HISTOPATHOLOGICAL STUDIES ON THE HEART OF RAT INTOXICATED WITH THE VENOMS OF AGKISTRODON SNAKES 1986

2/6/24 (Item 24 from file: 5) 0005065106 BIOSIS NO.: 198681028997

HISTOPATHOLOGICAL STUDIES ON THE EARLY SKIN INJURY BY ENVENOMATION WITH THE KOREAN AGKISTRODON SNAKES 198

2/6/25 (Item 25 from file: 5) 0014824194 BIOSIS NO.: 200400214951

Identification of euglenoid algae that produce ichthyotoxin(s). 2004

2/6/26 (Item 26 from file: 155) 17190054 PMID: 15032748

Molecular evolution and structure-function relationships of crotoxin-like and asparagine-6-containing phospholipases A2 in pit viper venoms. Jul1 2004

26/27 (Item 27 from file: 5) 0014993929 BIOSIS NO.: 200400364718  
Molecular evolution and structure-function relationships of crotoxin-like and asparagine-6-containing phospholipases A2 in pit viper venoms 2004

26/28 (Item 28 from file: 5) 00068373462 BIOSIS NO.: 199038057373  
NEUROTOXINS FROM THE VENOMS OF CROTALID SNAKES COLLECTED IN CHINA BOOK TITLE: MATSUI M. T. HIKIDA AND R. C. GORIS (ED.). CURRENT HERPETOLOGY IN EAST ASIA; SECOND JAPAN-CHINA HERPETOLOGICAL SYMPOSIUM, KYOTO, JAPAN, JULY 1988. IX-521P. HERPETOLOGICAL SOCIETY OF JAPAN; KYOTO, JAPAN. ILLUS. MAPS 1989

26/29 (Item 29 from file: 5) 0012234776 BIOSIS NO.: 199900494436  
Neutralization of Agkistrodon saxatilis (Gloydus saxatilis) venom with CroTAbs(R) in a murine model 1999

26/30 (Item 30 from file: 5) 0014206479 BIOSIS NO.: 200300165198  
The Novel Angiogenic Inhibitor Saxatilis Reduces Ocular Neovascularization Elicited by bFGF and Hyperoxia 2002

26/31 (Item 31 from file: 5) 0014770613 BIOSIS NO.: 200400137967  
Purification, cDNA cloning and sequence analysis of thrombin-like enzyme from Gloydus saxatilis. 2003

26/32 (Item 32 from file: 5) 0005739597 BIOSIS NO.: 198784093746  
PATHOLOGICAL STUDIES ON THE EFFECTS OF VENOM OF AGKISTRODON- SAXATILIS IN THE HEART OF RATS 1987

26/33 (Item 33 from file: 5) 0002226358 BIOSIS NO.: 197866073847  
SNAKE BITES IN SOUTH KOREA 1978

26/34 (Item 34 from file: 155) 11691720 PMID: 11864711  
Snake venom disintegrin, saxatilis, inhibits platelet aggregation, human umbilical vein endothelial cell proliferation, and smooth muscle cell migration. Jan 1 2002

26/35 (Item 35 from file: 5) 0013636201 BIOSIS NO.: 200200229712  
Snake venom disintegrin, saxatilis, inhibits platelet aggregation, human umbilical vein endothelial cell proliferation, and smooth muscle cell migration 2002

26/36 (Item 36 from file: 5) 0012638509 BIOSIS NO.: 200000356822  
Suppression of superoxide production by chlorothalimil in striped bass (Morone saxatilis) macrophages. The role of cellular sulphydryls and oxidative stress 2000

26/37 (Item 37 from file: 5) 0012574270 BIOSIS NO.: 200000292583  
A survey of size-specific mercury concentrations in game fish from Maryland fresh and estuarine waters 2000

26/38 (Item 38 from file: 155) 12594632 PMID: 7706692  
Strong natural selection causes microscale allozyme variation in a marine snail. Mar 28 1995

26/39 (Item 39 from file: 5) 0009768436 BIOSIS NO.: 199598236289  
Strong natural selection causes microscale allozyme variation in a marine snail 1995

26/40 (Item 40 from file: 5) 0014918052 BIOSIS NO.: 200400238809  
Tolerance to heavy metals in Littorina saxatilis from a metal contaminated estuary in the Isle of Man 2004

26/41 (Item 41 from file: 349) 01180129 \*\*Image available\*\*  
DINOFLAGELLATE KARLOTOXINS, METHODS OF ISOLATION AND USES THEREOF KARLOTOXINES DINOFLAGELLES, PROCESSES D'ISOLATION ET UTILISATIONS DE CES DERNIERES Publication Language: English Filing Language: English Fulltext Availability: Detailed Description Claims Fulltext Word Count: 21162 Publication Year: 2004

26/42 (Item 42 from file: 349) 01072608 \*\*Image available\*\*  
METHODS AND COMPOSITIONS FOR PRODUCTION OF RECOMBINANT PEPTIDES PROCESSES ET COMPOSITIONS DE PRODUCTION DE PEPTIDES RECOMBINANTS Publication Language: English Filing Language: English Fulltext Availability: Detailed Description Claims Fulltext Word Count: 18947 Publication Year: 2003

26/43 (Item 43 from file: 349) 01025554  
NOVEL NUCLEIC ACIDS AND POLYPEPTIDES NOUVEAUX ACIDES NUCLEIQUES ET POLYPEPTIDES Publication Language: English Filing Language: English Fulltext Availability: Detailed Description Claims Fulltext Word Count: 324318 Publication Year: 2003

26/44 (Item 44 from file: 349) 00988382 \*\*Image available\*\*  
ANTI-CANCER AGENTS COMPRISING DISINTEGRIN GENES AND THE TREATING METHODS AGENTS ANTICANCEREUX COMPRENANT DES GENES DE DESINTEGRINE ET PROCESSES DE TRAITEMENT ASSOCIES Publication Language: English Filing Language: Korean Fulltext Availability: Detailed Description Claims Fulltext Word Count: 2890 Publication Year: 2003

26/45 (Item 45 from file: 349) 003931754  
FEED ADDITIVE COMPOSITIONS AND METHODS COMPOSITIONS D'ADDITIF ALIMENTAIRE ET METHODES ASSOCIEES Publication Language: English Filing Language: English Fulltext Availability: Detailed Description Claims Fulltext Word Count: 37802 Publication Year: 2002

26/46 (Item 46 from file: 349) 00880522 \*\*Image available\*\*

NOVEL PROTEIN DERIVED FROM AGKISTRODON SAXATILIS EMELIANOV AND PROCESS FOR PREPARING THE SAME NOUVELLE PROTEINE DERIVEE D'AGKISTRODON SAXATILIS EMELIANOV ET SON PROCEDE DE PREPARATION Publication Language: English Filing Language: Korean Fulltext Availability: Detailed Description Claims Fulltext Word Count: 5537 Publication Year: 2002

26/47 (Item 47 from file: 349) 00862081  
THERAPEUTIC AGENTS - II AGENTS THERAPEUTIQUES - II Publication Language: English Filing Language: English Fulltext Availability: Detailed Description Claims Fulltext Word Count: 36630 Publication Year: 2001

26/48 (Item 48 from file: 349) 00862080  
THERAPEUTIC AGENTS - I AGENTS THERAPEUTIQUES - I Publication Language: English Filing Language: English Fulltext Availability: Detailed Description Claims Fulltext Word Count: 48640 Publication Year: 2001

26/49 (Item 49 from file: 349) 00862079  
THERAPEUTIC AGENTS - III AGENTS THERAPEUTIQUES - III Publication Language: English Filing Language: English Fulltext Availability: Detailed Description Claims Fulltext Word Count: 41488 Publication Year: 2001

26/50 (Item 50 from file: 349) 00834529  
HUMAN GENES AND GENE EXPRESSION PRODUCTS NOUVEAUX GENES HUMAINS ET LEURS PRODUITS D'EXPRESSION Publication Language: English Filing Language: English Fulltext Availability: Detailed Description Claims Fulltext Word Count: 182260 Publication Year: 2

26/51 (Item 51 from file: 349) 00824983  
HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR ANALYSIS OF GENE EXPRESSION IN HUMAN HEA SONES D'ACIDE NUCLEIQUE A UN SEUL EXON DERIVEES DU GENOME HUMAIN UTILIES POUR ANALYSER L'EXPRESSION GENI DANS LE COEUR HUMAIN Publication Language: English Filing Language: English Fulltext Availability: Detailed Description Claims Fulltext Word Count: 255847 Publication Year: 2001

26/52 (Item 52 from file: 349) 00824982  
HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR ANALYSIS OF GENE EXPRESSION IN HUMAN ADU LIVER SONES D'ACIDE NUCLEIQUE A UN SEUL EXON DERIVEES DU GENOME HUMAIN UTILIES POUR ANALYSER L'EXPRESSION GENIQUE DANS LE FOIE ADULTE HUMAIN Publication Language: English Filing Language: English Fulltext Availability: Detailed Description Claims Fulltext Word Count: 353364 Publication Year: 2001

26/53 (Item 53 from file: 349) 00824980  
HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR ANALYSIS OF GENE EXPRESSION IN HUMAN BRE AND BT 474 CELLS SONES D'ACIDE NUCLEIQUE A UN SEUL EXON DERIVEES DU GENOME HUMAIN UTILIES POUR ANALYSER L'EXPRESSION GENIQUE DANS DES CELLULES BT 474 Publication Language: English Filing Language: English Fulltext Availability: Detai Description Claims Fulltext Word Count: 153718 Publication Year: 2001

27/73 (Item 3 from file: 155) DIALOG(R)File 155: MEDLINE(R) (c) format only 2004 The Dialog Corp. All rts. reserv. 10891273 PMID: 11024495

Biochemical characterization of a thrombin-like enzyme and a fibrinolytic serine protease from snake (Agkistrodon saxatilis) venom

Koh Y S; Chung K H; Kim D S  
Department of Biochemistry, College of Science and Bioproducts Research Center Yonsei University Seoul, South Korea. Toxicon - official journal of the International Society on Toxinology ( ENGLAND) Apr 2001, 39 (4) p555-60, ISSN 0041-0101 Journal Code: 1307333 Document type: Journal Article Languages: ENGLISH Main Citation Owner: NL Record type: Completed

A thrombin-like enzyme and a fibrinolytic serine protease were purified to homogeneity from the venom of a Korean snake Agkistrodon saxatilis emelianov. Both the purified enzymes migrated as a single protein band corresponding to 39 kDa in SDS PAGE. However, the molecular mass was reduced to 28 kDa by enzymatic removal of the N-linked carbohydrates in those two different enzyme species. Although the thrombin-like enzyme and the fibrinolytic protease show homologous features in their molecular sizes and N-terminal amino acid sequences, yet they can be clearly distinguished from each other in terms of subunit specificity, susceptibility to inhibitors and fibrinogen degradation. It is postulated that these two enzymes are capable of functioning in a cooperative manner to effectively remove fibrinogen and consequently to reduce the blood viscosity. Record D Created: 20001130 Record Date Completed: 20001130

27/76 (Item 6 from file: 5) DIALOG(R)File 5: Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv. 0001926957 BIOSIS NO.: 197662023096

CLINICAL ANALYSIS ON VENOMOUS SNAKE BITES IN KOREA

AUTHOR: NAH K Y  
JOURNAL: Journal of the Korean Surgical Society 17 (3): p199-208 1975 DOCUMENT TYPE: Article RECORD TYPE: Chaii LANGUAGE: Unspecified

27/77 (Item 7 from file: 155) DIALOG(R)File 155: MEDLINE(R) (c) format only 2004 The Dialog Corp. All rts. reserv. 06512337 PMID: 6426095

Ci ssific tion of Agkistrodon species in Chin

Chen Y C, Wu X F, Zhao E  
Toxicom - official journal of the International Society on Toxicology (ENGLAND); 1984, 22 (1) p53-61.  
ISSN 0041-0101 Journal Code: 1307333 Document type: Journal Article Languages: ENGLISH Main Citation Owner: NLM  
Record type: Completed

The wide geographical distribution of Agkistrodon and the slight morphological differences among the snakes of the genus Agkistrodon in China have posed a problem to taxonomists. We have employed polyacrylamide gel electrophoresis and immunological diffusion techniques for comparison of the venoms of different species and subspecies of Agkistrodon from various localities. The electrophoretic patterns of the proteins of the venoms were different from each other, but showed certain relations within species and subspecies. We used Ouchterlony double diffusion of a rabbit antiserum against the purified "neurotoxin" from the venom of Agkistrodon blomhoffi breviceaudus (from the Zhejiang Province of China) on the various venoms of Agkistrodon. Precipitin lines formed with immunological identity between the same species, partial identity between closely related species and no precipitin line between different species. Combining experimental data, morphological characteristics and geographical distribution, we propose that the genus Agkistrodon (sensu stricto) in China consists of seven species and subspecies: (1) Agkistrodon blomhoffi breviceaudus Stejneger, (2) A. b. ussuriensis Emelianov, (3) A. intermedius (Strauch), (4) A. saxatilis Emelianov, (5) A. shedaensis Zhao, (6) A. sirauchii Bedriaga, (7) A. monticola Werner. Agkistrodon acutus (Guenther) has recently been changed to a new genus, Deinagkistrodon, established by Gloyd in 1978. Record Date Created: 19840530 Record Date Completed: 19840530

27/12 (Item 12 from file: 5) DIALOG(R)File 5:Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv.  
0003619559 BIOSIS NO.: 198274035982  
EFFECT OF MICROBIAL VENOM PROTEINASE INHIBITORY SUBSTANCE ON SOME ENZYMES IN SNAKE VENOMS  
AUTHOR: SEU J H (Reprint), SAWAI Y  
AUTHOR ADDRESS: DEP OF CHEM, AGRIC COLLEGE, KYUNG-POOK NATIONAL UNIV, TAEGU, KOREA\*\*KOREA  
JOURNAL: Snake 13 (1): p38-41 1981 ISSN: 0386-3425 DOCUMENT TYPE: Article RECORD TYPE: Abstract LANGUAGE: ENGLISH

ABSTRACT: An inhibitory substance against proteinase activity of snake venoms (SV) had a potent inhibitory effect of proteinase activity of venoms of *Timmerus* flavoviridis, *T. elegans*, *T. tokarensis*, *T. oknavensis*, *T. mucroquarmatus*, *T. stejnegeri*, Agkistrodon blomhoffi, A. blomhoffi siniticus, A. haysi, A. saxatilis, A. rhodostoma, A. acutus, A. confortrix. Bites arelatis and Vipera russelli. Proteolytic activity of venom of *T. flavoviridis* on Azocoll was also completely inhibited by SV; L-amino acid oxidase of the venom was not inhibited. Proteinase activity of venom of *T. flavoviridis* could be separated into 2 fractions by SV; one was inactivated irreversibly with precipitation and the other was inactivated reversibly without precipitation.

27/13 (Item 13 from file: 5) DIALOG(R)File 5:Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv.  
0004727438 BIOSIS NO.: 198580036333  
EFFECTS OF VENOMS FROM KOREAN AGKISTRODON SNAKES ON BASIC HEMATOLOGIC FINDINGS IN MICE  
AUTHOR: UM J H (Reprint), KIM H C, SONG K Y  
AUTHOR ADDRESS: DEP PATHOLOGY, COLLEGE MED, CHUNG-ANG UNIV, SEOUL 151, KOREA\*\*KOREA  
JOURNAL: Chung-Ang Journal of Medicine 9 (4): p625-530 1984 ISSN: 0253-6250 DOCUMENT TYPE: Article RECORD TYPE: Abstract LANGUAGE: KOREAN

ABSTRACT: A. breviceaudus breviceaudus, A. caliginosus and A. saxatilis venoms were injected s.c. into mice (0.37 mg, 0.21 mg and 0.30 mg) after which hematologic studies were carried out. Mice were sacrificed at 5 min, 15 min, 30 min, 1 h, 3 h, 6 h, 5 days and 7 days. Each group consisted of 5 mice. Basic hematologic examinations included WBC (white blood cells), RBC (red blood cells) and Hb, MCV (mean cell volume) RDW (RBC distribution width) and platelets. The effects of A. b. breviceaudus venom indicated that changes of WBC were not significant. RBC were increased at an early stage but progressively decreased to 5.3  $\pm$  1.8 (times, 1012/l). Hb showed a similar pattern with RBC. MCV was slightly decreased to 50.7 fl. RDW were within normal limits. Platelets markedly and progressively decreased to 114.4  $\pm$  40.9 (times, 109/l). The effects of A. caliginosus venom showed that changes of WBC were not significant. RBC progressively decreased to 5.8  $\pm$  0.2 (times, 1012/l). Hb showed similar pattern with RBC. MCV decreased in the early stage but increased to 56.3  $\pm$  2.8 fl on the 7th day. RDW were within normal limits. Platelets progressively decreased to 494.3  $\pm$  114.5 (times, 109/l). The effects of A. saxatilis venom indicated that changes of WBC were not significant. RBC progressively decreased to 4.4  $\pm$  0.4 (times, 1012/l). Hb showed similar pattern with RBC. MCV increased later. RDW were within normal limits. Platelets markedly and progressively decreased to 40.2  $\pm$  13.8 (times, 109/l). Venoms from Korean Agkistrodon snakes showed similar basic hematologic effects in the blood of mice by marked decrease of RBC and platelets. The hematotoxic effects were most severe in A. saxatilis, A. b. breviceaudus and mild in A. caliginosus.

27/15 (Item 15 from file: 5) DIALOG(R)File 5:Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv.  
0002038118 BIOSIS NO.: 197713064110  
EXPERIMENTAL STUDIES ON KOREAN SNAKE VENOMS  
AUTHOR: KIM W J, AHN Y S, KIM J D, KIM S W, HONG S S  
JOURNAL: Korean Journal of Pharmacology 12 (2): p115-123 1976 ISSN: 0377-9459 DOCUMENT TYPE: Article  
RECORD TYPE: Citation LANGUAGE: Unspecified

27/17 (Item 17 from file: 5) DIALOG(R)File 5:Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv.  
0008791082 BIOSIS NO.: 1993955093348

Fibrinolytic and coagulation activities of Korean snake venoms

AUTHOR: Chung Kwang Hee, Kim Doo Sik  
AUTHOR ADDRESS: Dep. Biochemistry, Coll. Sci., Yonsei Univ., Seoul 120-749, south korea\*\*south korea  
JOURNAL: Korean Biochemical Journal 25 (8): p696-701 1992 ISSN: 0368-4881 DOCUMENT TYPE: Article  
RECORD TYPE: Abstract LANGUAGE: English

ABSTRACT: The action of snake venoms from 3 different kinds of Korean venomous species (Agkistrodon haysi breviceaudus, Agkistrodon saxatilis, Agkistrodon ussuriensis) on the haemostasis and fibrinolytic system was studied and compared with other two venoms of Agkistrodon rhodostoma, Malayana Pit Viper and Agkistrodon haysi blomhoffi, Japanese Mamushi. The coagula activity, fibrinolytic, fibrinogenolytic, and amidolytic activity were determined. Fibrinogen clotting activity in the venoms of Agkistrodon saxatilis and Agkistrodon ussuriensis were 1.0 and 3.5 NIH U/mg. However, it was not able to detect the fibrinogen clotting activity from the venom of Agkistrodon haysi (Korean Salmosa) during prolonged incubation. Polyacrylamide gel electrophoretic patterns of these venoms were quite different from each other. After removal of SDS from the gel with Triton X 100, the fibrinolytic activities in the gel could be directly detected by the fibrin-agar zymographic assay method. The venom of Agkistrodon haysi has shown at least two distinct fibrinolytic enzymes (51 Kd and 33 Kd). Agkistrodon saxatilis has three (47 Kd, 33 Kd, and 28 Kd), and Agkistrodon caliginosus has two (38 Kd and 33 Kd). No plasminogen activation activity was observed any of the venoms of Korean poisonous snakes.

27/22 (Item 22 from file: 5) DIALOG(R)File 5:Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv.  
0007697089 BIOSIS NO.: 199191079980  
HISTOPATHOLOGICAL OBSERVATIONS ON THE EFFECTS OF AGKISTRODON SNAKE VENOM IN ADRENAL GLAND OF RAT

AUTHOR: LEE M J (Reprint), PARK E S, PARK Y W, JAE J H, SONG K Y  
AUTHOR ADDRESS: DEP PATHOL, COLL MED, CHUNG-ANG UNIV, SEOUL 156-756, KOREA \*\*KOREA  
JOURNAL: Chung-Ang Journal of Medicine 15 (2): p165-164 1990 ISSN: 0253-6250 DOCUMENT TYPE: Article  
RECORD TYPE: Abstract LANGUAGE: KOREAN

ABSTRACT: To observe the histological effects on the adrenal glands by the venoms of Agkistrodon snakes in Korea, freeze d venom was administered to the rats with weight ranged 200-250gm. Each venom of A.b. breviceaudus (44mg), A. caliginosus (40mg) and A. saxatilis (42mg) was dissolved in 12 ml of normal saline, respectively and 0.4ml of which were administered through the tail vein of the each rat. Histopathological observations on the adrenal glands were done sequentially with time interval after venom administration at 1 hr., 3 hrs., 6 hrs., 24 hrs., 4 days and 7 days, respectively. The results were as follows: 1. In A. b. breviceaudus intoxication, 15 out of 52 rats (28.8%) were dead and revealed diffuse congestion in 11, focal hemorrhage in 5 and focal necrosis in 2 among them. In 1 to 6 hours were noted 10 diffuse congestion among 19 rats and focal hemorrhage in 2, diffuse hemorrhage in 2, and focal or diffuse necrosis in 3. In 24 hours were noted 3 focal necrosis in 7 rats. Only mild congestion was noted in 4 to 7 days. 2. In A. caliginosus intoxication, 8 out of 57 rats (14.7%) were dead and revealed diffuse congestion focal hemorrhage in 4 and focal necrosis in 2 among them. In 1 to 6 hours were noted 6 diffuse congestion among 21 rats, an focal hemorrhage in 2. In 24 hours, were noted diffuse congestion in 4 and focal necrosis in 1 among 10 rats. Diffuse congestion in 1 was noted among 18 rats in 4 to 7 days. 3. In A. saxatilis intoxication, 8 out of 50 rats (16%) were dead and revealed diffuse congestion in 7, focal hemorrhage in 1 and focal necrosis in 1 among them. In 1 to 6 hours were noted diffuse congestion in 8 focal hemorrhage in 3 and diffuse necrosis in 1 among 25 rats. In 24 hours diffuse congestion in 1 and focal necrosis in 3 among rats. Diffuse congestion in 2 among 10 rats in 4 to 7 days. Therefore, it was suggested that all three kinds of Agkistrodon snake venom in Korea could induce diffuse congestion, hemorrhage and/or necrosis in adrenal glands by its hematotoxic character of venom.

27/23 (Item 23 from file: 5) DIALOG(R)File 5:Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv.  
0005728810 BIOSIS NO.: 198784082959  
HISTOPATHOLOGICAL STUDIES ON THE HEART OF RAT INTOXICATED WITH THE VENOMS OF AGKISTRODON SNA  
AUTHOR: LEE J H (Reprint), YOO J H, SONG K Y  
AUTHOR ADDRESS: DEP PATHOL, COLL MED, CHUNG-ANG UNIV, SEOUL 151, KOREA\*\* KOREA  
JOURNAL: Chung-Ang Journal of Medicine 11 (4): p269-282 1986 ISSN: 0253-6250 DOCUMENT TYPE: Article  
RECORD TYPE: Abstract LANGUAGE: KOREAN

ABSTRACT: The main cause of death intoxicated with the venom is circulatory failure by the toxicity of the venom and the most frequent snake bites in Korea are caused by Agkistrodon snakes. So this experimental studies were carried out to observe the cardiotoxicity of venoms of Agkistrodon snakes in Korea, which consists of Agkistrodon b. breviceaudus, Agkistrodon caliginosus and Agkistrodon saxatilis. Experimental animals were adult rats with weight ranged 200. approx. 250 gm. Venoms of A. b. breviceaudus (44 mg), A. caliginosus (32 mg) and A. saxatilis (40 mg) were diluted in 12 ml of normal saline solution just before injection and 0.4 ml of this solution was administered through the tail vein of each rat. Then histopathological observations with light and electron microscope, were done on the heart of the rats died after intoxication with the venoms. The results obtained were as follows: 1. The heart of the intoxicated rat revealed marked hemorrhage in the ventricular and subendocardial myocardium especially in apical portion, grossly. Moderate to marked congestion, edema and hemorrhage were seen in the subendocardium and ventricular myocardium with coagulation necrosis and infiltration of a few neutrophils in the hemorrhagic areas. No fibrin thrombi was noted. 2. Electron microscopic changes of ventricular myocardium revealed marked intracellular edema with lifting, bullae formation and rupture of the sarcolemma as well as separation of myofibrils and myofibrils with random focal losses of myofibrils. Mitochondrial swelling and vacuole formation with focal necrosis of subcellular

microorganelles in the sarcoplasm were also noted. 3. Although there was little difference in death rates of three kinds of venoms, the basic pathological changes of myocardial damages were similar. 4. Therefore, it was assumed that acute cardiotoxicity with the venoms of Agkistrodon snakes, characterized by marked edema and hemorrhage followed by coagulation necrosis in the myocardium, could cause acute death in early stage by circulatory collapse and shock and which effects could be referred to the hematotoxicity of venom in the myocardium of rats.

2/7/26 (Item 26 from file: 155) DIALOG(R)File 155: MEDLINE(R) (c) formal only 2004 The Dialog Corp. All rts. reserv.  
17190054 PMID: 15032748

Molecular evolution and structure-function relationships of crotoxin-like and asparagine-6-containing phospholipases A2 in pit viper venoms.

Chen Yi-Hsuan; Wang Ying-Ming; Hsu Ming-Jhy; Tsai Inn-Ho  
Institute of Biological Chemistry, Academia Sinica, POB 23-106, Taipei, Taiwan.  
Biochemical journal (England) Jul 1 2004, 381 (Pt 1) p25-34, ISSN 1470-8728 Journal Code: 2984726R  
Document type: Journal Article Languages: ENGLISH Main Citation Owner: NLM Record type: Completed  
Some myotoxic or neurotoxic PLA2s (phospholipases A2) from pit viper venoms contain characteristic N6 substitutions. Our survey of the venoms of more than ten pit viper genera revealed that N6-PLA2s exist only in limited Asian pit vipers of two genera, Protobothrops and Gloydius, and exist as either monomers or the basic subunits of heterodimers in some New World pit vipers. For the newly identified N6-PLA2s, the neuromuscular blocking activities were assayed with the chick biventer cervicis neuromuscular tissue, whereas the increased serum creatine kinase level assessed their myotoxicities. The purified N6-PLA2s from Protobothrops mangshanensis and Gloydius intermedius saxatilis were found to be presynaptic neurotoxins. In contrast, all N6-PLA2s from the venoms of Sistrurus mliarius strackeri, S. m. barbouri, Crotalus viridis viridis, C. lepidus lepidus, Cerrophidion godmani and Bothriechis schlegelii were myotoxins without neurotoxicity even in the presence of crotoxin A. Crotoxin-like complexes were for the first time purified from the venoms of Sistrurus catenatus tigrinus, C. mitchelli mitchelli, C. horridus atricaudatus, C. basilius and C. durissus cumananensis. The cDNAs encoding six novel N6-PLA2s and subunits of the crotoxin-like complex from S. tigrinus were cloned and fully sequenced. Phylogeny analysis showed that two structural subtypes of N6-PLA2s with either F24 or S24 substitution have been evolved in parallel, possibly descended respectively from species related to present-day Protobothrops and Gloydius. Calmodulin binds all the N6-PLA2s but crotoxin A may inhibit its binding to crotoxin B and to other neurotoxic N6-PLA2s. Structure-activity relationships at various regions of the PLA2 molecules were extensively discussed. Record Date Created: 20040621 Record Date Completed: 20041104

2/7/28 (Item 28 from file: 5) DIALOG(R)File 5: Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv.

0006879482 BIOSIS NO.: 199038057373

NEUROTOXINS FROM THE VENOMS OF CROTALID SNAKES COLLECTED IN CHINA  
BOOK TITLE: MATSUI, M. T. HIKIDA AND R. C. GORIS (ED.), CURRENT HERPETOLOGY IN EAST ASIA, SECOND JAPAN-CHINA HERPETOLOGICAL SYMPOSIUM, KYOTO, JAPAN, JULY 1988. IX-521P. HERPETOLOGICAL SOCIETY OF JAPAN, KYOTO, JAPAN. ILLUS. MAPS  
AUTHOR: ZHANG J (Reprint)  
AUTHOR ADDRESS: SHANGHAI INST PHYSIOL, ACADEMIA SINICA, CHINA\*\*CHINA p505-506 1989 DOCUMENT TYPE: Meeting RECORD TYPE: Citation LANGUAGE: ENGLISH

2/7/29 (Item 29 from file: 5) DIALOG(R)File 5: Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv.

0012234776 BIOSIS NO.: 19990049436

Neutralization of Agkistrodon saxatilis (Gloydius saxatilis) venom with CroTab(R) in a murine model  
AUTHOR: McNally J (Reprint), Boyer L (Reprint), Hare T (Reprint), Constroe P (Reprint), McClure T (Reprint)  
AUTHOR ADDRESS: Arizona Poison and Drug Information Center, University of Arizona Health Sciences Center, Tucson, AZ, USA\*\*USA

JOURNAL: Journal of Toxicology Clinical Toxicology 37 (5) p667-668 Aug., 1999 1999 MEDIUM: print  
CONFERENCE/MEETING: Annual Meeting of the North American Congress of Clinical Toxicology La Jolla, California, USA September 28-October 4, 1999, 19990928 SPONSOR: North American Congress of Clinical Toxicology ISSN: 0731-3810 DOCUMENT TYPE: Meeting; Meeting Abstract RECORD TYPE: Citation LANGUAGE: English

2/7/30 (Item 30 from file: 5) DIALOG(R)File 5: Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv.

0014206479 BIOSIS NO.: 200300165198

The Novel Angiogenic Inhibitor Saxatilin Reduce Ocular Neovascularization Elicited by bFGF and Hyperoxia.

AUTHOR: Kwon O W (Reprint); Lee S H; Ahn B Y; Yoo W I; You Y S; Kim D S  
AUTHOR ADDRESS: Ophthalmology, Yonsei Univ College of Med, Seoul, South Korea\*\*South Korea  
JOURNAL: ARVO Annual Meeting Abstract Search and Program Planner 2002 p Abstract No. 3716 2002 2002  
MEDIUM: cd-rom CONFERENCE/MEETING: Annual Meeting of the Association For Research in Vision and Ophthalmology Fort Lauderdale, Florida, USA May 05-10, 2002; 20020505 DOCUMENT TYPE: Meeting; Meeting Abstract RECORD TYPE: Abstract LANGUAGE: English

ABSTRACT: Purpose: The purpose of the present study was to explore the potential of saxatilin in the treatment of ocular neovascularization. In the previous studies, anti-angiogenic activity of this polypeptide was determined in cultured primary human umbilical vein endothelial cell proliferation induced by bFGF. Saxatilin is a novel disintegrin derived from venom of Gloydius

saxatilis, potentially inhibited human platelet aggregation caused by adenosine diphosphate (ADP) through the blockade of fibrinogen binding to platelet glycoprotein IIb/IIIa. This protein is a single-chain polypeptide composed of 73 amino acids including the tripeptide sequence Arg-Gly-Asp, a proposed recognition site of adhesive proteins. Methods: We demonstrated that saxatilin is an inhibitor of angiogenesis induced by bFGF (650ng/ml rabbit cornea). And we investigated whether saxatilin could inhibit retinal neovascularization on oxygen induced retinopathy (OIR) mouse model. Retinal neovascularization was induced in newborn mice pups by exposure to hyperoxia (75% oxygen / five days) and then normoxia. Saxatilin was intraperitoneally injected into the mouse model (0.1-10 mg/kg/day for five days). The severity of retinopathy was assessed by a retinopathy scoring system of fluorescent conjugated dextran-perfused or ADPase stained retinal flat mounts. Results: Treatment with saxatilin revealed a significant reduction of corneal vessel growth in animals with bFGF-induced corneal vascularization, compared with control groups treated with vehicle. And, the oxygen-induced retinopathy animal model showed an retinal neovascularization, haemorrhage, and blood vessel tortuosity. Intraperitoneal injection of saxatilin resulted in fewer neovascular tufts and pre-retinal vascular cells than in control mouse with vehicle injection. Conclusion: These results suggest that saxatilin, angiogenic inhibitor could have therapeutic effects on ocular neovascular diseases.

2/7/31 (Item 31 from file: 5) DIALOG(R)File 5: Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv.

0014770613 BIOSIS NO.: 200400137967

Purification, cDNA cloning and sequence analysis of thrombin-like enzyme from Gloydius saxatilis.

AUTHOR: Sun De-Jun (Reprint); Yang Chun-Wei; Yang Tong-Shu; Yan Wei-Qun; Wang Wei

AUTHOR ADDRESS: Institute of Frontier Medical Science, Jilin University, Changchun, 130021, China\*\*China

AUTHOR E-MAIL ADDRESS: sunjd@jlu.edu.cn

JOURNAL: Acta Zoologica Sinica 49 (6) p678-682 Dec. 2003 2003 MEDIUM: print ISSN: 0001-7302

DOCUMENT TYPE: Article RECORD TYPE: Abstract LANGUAGE: Chinese

ABSTRACT: Thrombin-like enzyme has great medical application in treating thrombus. A thrombin-like enzyme from Gloydius saxatilis snake venom was isolated and purified to homogeneity by a rapid and effective method using ion-exchange chromatography on DEAE-Sepharose and affinity chromatography on heparin-sepharose. SDS-polyacrylamide electrophoresis under reducing condition revealed that the purified enzyme had a single protein band and its molecular weight was 32 000 dal. Total RNAs were extracted from the venom gland of the G. saxatilis snake. Using degenerate primers, we amplified the cDNA of the thrombin-like enzyme gene in the venom gland of G. saxatilis using the reverse transcription-polymerase chain reaction (RT-PCR) method. The cDNA fragment was inserted into pGEMT vector, cloned and its nucleotide sequence was determined. Its reading frame is composed of 774 nucleotides and codes a protein prezymogen of 258 amino acids, including a putative secretory signal peptide of 18 amino acids and a proposed pro-peptide of 6 amino acid residues. It contains 12 cysteine residues. The sequence analysis indicates that the deduced amino acid sequence of the cDNA fragment shares high identity with the thrombin-like enzyme genes of other snakes in the gene bank. The query sequence exhibits strong amino acid sequence homology of 88% and 86% to the serine protease of T. gramineus, thrombin-like defibrase I of D. acutus and serine protease catroxtase II of atrox respectively. Based on the amino acid sequences of other thrombin-like enzymes, the catalytic residues and disulfide bridges of this thrombin-like enzyme are deduced as follows: catalytic residues: His65, Asp110, Ser204, and six disulfide bridges Cys31-Cys163, Cys60-Cys66, Cys98-Cys256, Cys142-Cys210, Cys174-Cys189 and Cys200-Cys225. According to the possible linked glycosylation sites N-X-T (Asn-X-Thr) or N-X-S (Asn-X-Ser), its possible glycosylation sites are N44-S45-T46 and N251-T252-T253 residues.

2/7/32 (Item 32 from file: 5) DIALOG(R)File 5: Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv.

0005739597 BIOSIS NO.: 198784093746

PATHOLOGICAL STUDIES ON THE EFFECTS OF VENOM OF AGKISTRODON SAXATILIS IN THE HEART OF RATS  
AUTHOR: CHUN O B (Reprint); SONG K Y; SHIM T S

AUTHOR ADDRESS: DEP PEDIATRICS PATHOL. COLL. MED. CHUNG-ANG UNIV. SEOUL 151, KOREA\*\*KOREA

JOURNAL: Chung-Ang Journal of Medicine 12 (1) p1-14 1987 ISSN: 0253-6250 DOCUMENT TYPE: Article

RECORD TYPE: Abstract LANGUAGE: KOREAN

ABSTRACT: For the elucidation of mechanism of circulatory collapse in acute venom intoxication, an experimental studies was carried out for the cardiotoxic effect of rat myocardium using the venom of Agkistrodon saxatilis. The rat used were adults weighing between 200 .apprx. 250 gm. 40 mg of freeze dried venom was diluted to 12 ml of normal saline, and 0.4 ml of this solution was administered intravenously through tail vein to each rat. The rats were sacrificed serially with time interval; after venom administration 1 hour, 3 hours, 6 hours, 1 day, 4 days and 7 days, respectively. The hearts were immediately prepared light and electron microscopy. Additionally serum enzymes, namely glutamic oxaloacetic transaminase (GOT), lactic dehydrogenase (LDH) and creatinine phosphokinase (CPK) were measured for the associated changes. The results obtained were as follows: Light microscopic changes in the heart revealed moderate to marked congestion, edema and hemorrhage in ventricular and subendocardial myocardium with coagulation necrosis of myocardial muscles in the hemorrhagic areas in 1 ho cells in 3 apprx. 6 hours. Thereafter, fibrosis was due in the areas of necrosis. Early electron microscopic changes in the myocardium revealed marked intracellular edema with lifting, bleb formation and rupture of sarcolemma as well as separation myofibrils and focal random loss of myofibrils. Mitochondrial swelling and vacuolar change were also seen. Serum level GOT were significantly elevated in 3 hours to 312.5 +- 213.6 IU/l(p<0.05) until 6 hours to 376.7 +- 283.5 IU/l(p<0.01). Serum le

of LDH were significantly reduced in 24 hours to 508.1 +- 269.0 IU/l(p<0.01) until 4 days to 453.4 +- 190.3 IU/l(p<0.01). Serum levels of CPK were significantly reduced in 24 hours to 306.1 +- 205.1 IU/l(p<0.01) until 4 days 532.1 +- 457.8 IU/l(p<0.05).

Summarizing the above results, it was suggested that cardiotoxicity of the venom of *Agkistrodon saxatilis*, characterized by marked myocardial edema and hemorrhage with necrosis, could play a role in explaining acute circulatory collapse in rats. It was also interesting to note that the extent of myocardial damage did not parallel to the levels of serum glutamic oxalobacetic transaminase, lactic dehydrogenase and creatinine phosphokinase.

2/7/33 (Item 33 from file: 5) DIALOG(R)File 5:Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv.  
0002225358 BIOSIS NO.: 197865073847

SNAKE BITES IN SOUTH KOREA

AUTHOR: SAWAI Y (Reprint); LAH K-Y

AUTHOR ADDRESS: JPN SNAKE INST, YABUZUKA-HONMACHI, NITTAGUN, GUNMA 379-23, JPN\*\*JAPAN

JOURNAL: Snake 9 (2): p39-47 1978 ISSN: 0386-3425 DOCUMENT TYPE: Article RECORD TYPE: Abstract

LANGUAGE: ENGLISH

ABSTRACT: Epidemiologic and clinical studies on 82 patients of Korean mamushi bites admitted to the Wonju Union Christian Hospital in Korea from 1959 through 1973 were carried out. The mamushi responsible for the bites were *Agkistrodon blomhoffi breviceaudus* Stejnegeri, *A. caliginosus* Gloyd and *A. saxatilis* Emelianov. During warmer months from May through Sept., 97.6% of the total bites were reported. Seventy-eight percent of the bites were distributed between the ages of 10-40, and bites in males were 2 times as frequent as those in females. Seventy percent of the bites were reported in agricultural fields, 21% in mountains and 8.5% in residences. Most bites occurred in extremities (92.7%); 68.3% were in lower extremities and 29.3% in upper extremities. The highest number of bites occurred on feet (52.4%), and 19.5% on fingers and 13.4% on legs. Major local symptoms and signs were pain, bleeding from wound, swelling, subcutaneous hemorrhage and necrosis. The rate of occurrence of necrosis was high because of prolonged application of tourniquet. Systemic symptoms and signs such as ptosis of eyelids, blurred vision, drowsiness or unconsciousness, vomiting, dyspnea, fever and abdominal pain were reported in 18 bites. The cause of 4 deaths that occurred 4-9 days after the bites was probably prolonged shock induced by subacute effect of the venom

2/7/34 (Item 34 from file: 155) DIALOG(R)File 155:MEDLINE(R) (c) format only 2004 The Dialog Corp. All rts. reserv.

11691720 PMID: 11864711

Snake venom disintegrin, saxatillin, inhibits platelet aggregation, human umbilical vein endothelial cell proliferation, and smooth muscle cell migration.

Hong Sung-Yu; Koh You-Seok; Chung Kwang-Hoe; Kim Doo-Sik

Department of Biochemistry, College of Science, and Bioproducts Research Center, Yonsei University, Seoul 120-749, South Korea.

Thrombosis research (United States) Jan 1 2002; 105 (1) p79-86 ISSN 0049-3848 Journal Code: 0326377 Document type: Journal Article Languages: ENGLISH. Main Citation Owner: NLM Record type: Completed  
A novel disintegrin, saxatillin, was purified from Korean snake (*Glycydus saxatilis*) venom by means of chromatographic fractionations. We have also isolated the cDNA encoding the disintegrin using cDNA library of the snake venom gland and analyzed its complete nucleotide sequence. Saxatillin is a single-chain polypeptide composed of 73 amino acids including 12 cysteines as well as the tripeptide sequence Arg-Gly-Asp (RGD), a proposed recognition site of adhesive proteins. Molecular mass of saxatillin was determined to be 7712 Da by matrix-assisted laser desorption/ionization mass spectrometry. Saxatillin inhibits glycoprotein (GP) IIb/IIIa binding to immobilized fibrinogen with IC<sub>50</sub> of 2.0 nM and ADP-induced platelet aggregation with IC<sub>50</sub> of 127 nM, respectively. The snake venom disintegrin also significantly suppresses basic fibroblast growth factor-induced human umbilical vein endothelial cell (HUVEC) proliferation, but has little effect on normal growth of the cell. Interaction of human umbilical vein cell to vitronectin as well as vitronectin-induced migration of the cells was strongly inhibited by saxatillin. Several lines of experimental evidence suggest potential use of saxatillin for development of therapeutic agents. Record Date Created: 20020226 Record Date Completed: 20020712

5/6/1 (Item 1 from file: 155)

10891273 PMID: 11024495

Biochemical characterization of a thrombin-like enzyme and a fibrinolyticserine protease from snake (*Agkistrodon saxatilis*) venom. Apr 2001

5/6/2 (Item 2 from file: 5) 0012853923 BIOSIS NO.: 200100025762

Biochemical characterization of a thrombin-like enzyme and a fibrinolytic serine protease from snake (*Agkistrodon saxatilis*) venom 2001

5/6/3 (Item 3 from file: 5) 0001928957 BIOSIS NO.: 197662023096

CLINICAL ANALYSIS ON VENOMOUS SNAKE BITES IN KOREA 1975

5/6/4 (Item 4 from file: 155) 06512337 PMID: 6426095

Classification of *Agkistrodon* species in China. 1984

5/6/5 (Item 5 from file: 5) 0004282033 BIOSIS NO.: 198478017440

CLASSIFICATION OF AGKISTRODON SPECIES IN CHINA 1984

5/6/6 (Item 6 from file: 5) 0003619559 BIOSIS NO.: 198274025682

EFFECT OF MICROBIAL VENOM PROTEINASE INHIBITORY SUBSTANCE ON SOME ENZYMES IN SNAKE VENOMS 1981

5/6/8 (Item 8 from file: 5) 0002038118 BIOSIS NO.: 197713064110

EXPERIMENTAL STUDIES ON KOREAN SNAKE VENOMS 1976

5/6/9 (Item 9 from file: 5) 0008791082 BIOSIS NO.: 199395093348

Fibrinolytic and coagulation activities of Korean snake venoms 1992

5/6/10 (Item 10 from file: 5) 0007697089 BIOSIS NO.: 199191079980

HISTOPATHOLOGICAL OBSERVATIONS ON THE EFFECTS OF AGKISTRODON SNAKE VENOM IN ADRENAL GLANDS OF RAT 1990

5/6/11 (Item 11 from file: 5) 0005728810 BIOSIS NO.: 198784082959

HISTOPATHOLOGICAL STUDIES ON THE HEART OF RAT INTOXICATED WITH THE VENOMS OF AGKISTRODON SNAKES 1986

5/6/12 (Item 12 from file: 5) 0005065106 BIOSIS NO.: 198681028997

HISTOPATHOLOGICAL STUDIES ON THE EARLY SKIN INJURY BY ENVENOMATION WITH THE KOREAN AGKISTRODON SNAKES 1

5/6/13 (Item 13 from file: 155) 17190054 PMID: 15032748

Molecular evolution and structure-function relationships of crotoxin-like and asparagine-6-containing phospholipases A2 in pit viper venoms. Ju 2004

5/6/14 (Item 14 from file: 5) 0014993929 BIOSIS NO.: 200400364718

Molecular evolution and structure-function relationships of crotoxin-like and asparagine-6-containing phospholipases A2 in pit viper venoms 20

5/6/15 (Item 15 from file: 5) 0006879482 BIOSIS NO.: 199038057373 NEUROTOXINS FROM THE VENOMS OF CROTALID SNAKES COLLECTED IN CHINA BOOK TITLE: MATSUI, M., T. HIKIDA AND R. C. GORIS (ED.) CURRENT HERPETOLOGY IN EAST ASIA; SECON JAPAN-CHINA HERPETOLOGICAL SYMPOSIUM, KYOTO, JAPAN, JULY 1988. IX-521P. HERPETOLOGICAL SOCIETY OF JAPAN. KYOT JAPAN. ILLUS. MAPS 1989

5/6/16 (Item 16 from file: 5) 0012234776 BIOSIS NO.: 199900494436

Neutralization of *Agkistrodon saxatilis* (*Glycydus saxatilis*) venom with CroTAcr(R) in a murine model 1999

5/6/17 (Item 17 from file: 5) 0014206479 BIOSIS NO.: 200300165198

The Novel Angiogenic Inhibitor : Saxatillin Reduce Ocular Neovascularization Elicited by bFGF and Hyperoxia 2002

5/6/18 (Item 18 from file: 5) 0014770613 BIOSIS NO.: 200400137967

Purification, cDNA cloning and sequence analysis of thrombin-like enzyme from *Glycydus saxatilis*. 2003

5/6/19 (Item 19 from file: 5) 0005739597 BIOSIS NO.: 198784093746

PATHOLOGICAL STUDIES ON THE EFFECTS OF VENOM OF AGKISTRODON - SAXATILIS IN THE HEART OF RATS 1987

5/6/20 (Item 20 from file: 5) 0002225358 BIOSIS NO.: 197866073847

SNAKE BITES IN SOUTH KOREA 1976

5/6/21 (Item 21 from file: 155) 11691720 PMID: 11864711

Snake venom disintegrin, saxatillin, inhibits platelet aggregation, human umbilical vein endothelial cell proliferation, and smooth muscle cell migration. Jan 1 2002

5/6/22 (Item 22 from file: 5) 0013636201 BIOSIS NO.: 200200229712

Snake venom disintegrin, saxatillin, inhibits platelet aggregation, human umbilical vein endothelial cell proliferation, and smooth muscle cell migration 2002

5/6/23 (Item 23 from file: 349) 00988382 \*\*Image available\*\*

ANTI-CANCER AGENTS COMPRISING DISINTEGRIN GENES AND THE TREATING METHODS AGENTS ANTICANCERELUX COMPRENA DES GENES DE DESINTEGRINE ET PROCEDES DE TRAITEMENT ASSOCIES Publication Language: English Filing Language: Korean Fulltext Availability: Detailed Description Claims Fulltext Word Count: 2890 Publication Year: 2003

5/6/24 (Item 24 from file: 349) 00880522 \*\*Image available\*\*

NOVEL PROTEIN DERIVED FROM AGKISTRODON SAXATILIS EMELIANOV AND PROCESS FOR PREPARING THE SAME NOUVELLE PROTEINE DERIVEE D' AGKISTRODON SAXATILIS EMELIANOV ET SON PROCEDE DE PREPARATION Publication Language: Englis Filing Language: Korean Fulltext Availability: Detailed Description Claims Fulltext Word Count: 6537 Publication Year: 2002

5/7/22 (Item 22 from file: 5) DIALOG(R)File 5:Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv.

0013636201 BIOSIS NO.: 200200229712

Snake venom disintegrin, saxatillin, inhibits platelet aggregation, human umbilical vein endothelial cell proliferation, and smooth muscle cell migration

AUTHOR: Hong Sung-Yu; Koh You-Seok; Chung Kwang-Hoe; Kim Doo-Sik (Reprint)

AUTHOR ADDRESS: Department of Biochemistry, College of Science, and Bioproducts Research Center, Yonsei University Seoul, 120-749, South Korea\*\*South Korea

JOURNAL: Thrombosis Research 105 (1): p79-86 January 1, 2002 2002 MEDIUM: print ISSN: 0049-3848

ce b c g h



ABSTRACT: A novel disintegrin, saxatillin, was purified from Korean snake (*Gloydius saxatilis*) venom by means of chromatographic fractionations. Saxatillin, was also isolated the cDNA encoding the disintegrin using cDNA library of the snake venom gland and analyzed its complete nucleotide sequence. Saxatillin is a single-chain polypeptide composed of 73 amino acids including 12 cysteines as well as the tripeptide sequence Arg-Gly-Asp (RGD), a proposed recognition site of adhesive proteins. Molecular mass of saxatillin was determined to be 7712 Da by matrix-assisted laser desorption ionization mass spectrometry. Saxatillin inhibits glycoprotein (GP) IIb/IIIa binding to immobilized fibrinogen with IC50 of 2.0 nM and ADP-induced platelet aggregation with IC50 of 127 nM, respectively. The snake venom disintegrin also significantly suppresses basic fibroblast growth factor-induced human umbilical vein endothelial cell (HUVEC) proliferation, but has little effect on normal growth of the cell. Interaction of human umbilical vein cell to immobilized vitronectin is also inhibited by binding of saxatillin to  $\alpha$ 5 $\beta$ 1 integrin. Adhesion of smooth muscle cells (SMCs) to vitronectin as well as vitronectin-induced migration of the cells was strongly inhibited by saxatillin. Several lines of experimental evidence suggest potential use of saxatillin for development of therapeutic agents.

- 6/6/1 (Item 1 from file: 155) 11097126 PMID: 11147345  
[Phylogenetic relationships among Viperae, Crotalinae based on mitochondrial 12S rRNA sequence variations] 2000
- 6/6/2 (Item 1 from file: 5) 0013228455 BIOSIS NO.: 200100460295  
Phylogenetic relationships among Crotalinae based on mitochondrial cytochrome B gene sequence variations 2001
- 6/6/3 (Item 2 from file: 5) 0012669693 BIOSIS NO.: 200000368006  
Phylogenetic relationships among Viperae, Crotalinae based on mitochondrial 12S rRNA sequence variations 2000
- 6/6/4 (Item 3 from file: 5) 0012381137 BIOSIS NO.: 200000059450  
Comparative studies on the skull morphology of Chinese species of Agkistrodon and Deinagkistrodon, with discussion on their classification (Serpentes: Crotalinae) 1999
- 6/6/5 (Item 4 from file: 5) 0012051297 BIOSIS NO.: 199900310957  
RAPD analysis of pit-vipers of the genus Agkistrodon in China 1999
- 6/6/6 (Item 5 from file: 5) 0010401610 BIOSIS NO.: 199699035670  
Comparative observations on dorsal scales of shed skins of the genus Agkistrodon (Viperidae, Crotalinae) from Far East Asia 1995
- 6/6/7 (Item 6 from file: 5) 0007642535 BIOSIS NO.: 199191025426  
IMMUNOCYTOCHEMICAL STUDY ON THE ENTEROENDOCRINE CELLS IN THE GASTROINTESTINAL TRACTS OF THE KOREAN SNAKES 1990
- 6/6/8 (Item 7 from file: 5) 0007521304 BIOSIS NO.: 199141033930  
COMPARATIVE STUDY OF PROTEIN C ACTIVATORS FROM THE AGKISTRODON SNAKE VENOMS 1991
- 6/6/9 (Item 8 from file: 5) 0007195195 BIOSIS NO.: 1990089113086  
HERPETOLOGICAL OBSERVATIONS IN THE USSURI TAIGA SOVIET FAR EAST RUSSIAN SFSR USSR 1989
- 6/6/10 (Item 9 from file: 5) 0006879439 BIOSIS NO.: 199038057330  
CLASSIFICATION OF AGKISTRODON -HALYS IN NORTHEAST CHINA BOOK TITLE: MATSUI, M., T. HIKIDA AND R. C. GORIS (ED.), CURRENT HERPETOLOGY IN EAST ASIA: SECOND JAPAN-CHINA HERPETOLOGICAL SYMPOSIUM, KYOTO, JAPAN, JULY 1988. IX+521P. HERPETOLOGICAL SOCIETY OF JAPAN: KYOTO, JAPAN. ILLUS. MAPS 1989
- 6/6/11 (Item 10 from file: 5) 0005017388 BIOSIS NO.: 198631096267  
A STUDY ON AGKISTRODON -CALIGINOSUS 1985
- 6/6/12 (Item 11 from file: 5) 0004654100 BIOSIS NO.: 198579072999  
EFFECTS OF KOREAN SNAKE VENOMS ON THE CONTRACTILITY AND ACTION POTENTIAL OF FROG VENTRICULAR MUSCLE CELLS 1984
- 6/6/13 (Item 12 from file: 5) 00046519412 BIOSIS NO.: 198579038311  
A DESCRIPTION OF A SMALL COLLECTION OF AMPHIBIANS AND REPTILES FROM NORTH KOREA WITH NOTES ON THE DISTRIBUTION OF THE HERPETOFAUNA IN THAT COUNTRY 1984
- 6/6/14 (Item 13 from file: 5) 0004201631 BIOSIS NO.: 198477033542  
BIOCHEMICAL VARIATION AND SYSTEMATIC STATUS OF THE GENUS AGKISTRODON CROTALIDAE IN KOREA 1979
- 6/6/15 (Item 14 from file: 5) 00022885192 BIOSIS NO.: 198019061681  
A MICROBIAL INHIBITORY SUBSTANCE TO SNAKE VENOMS 1979
- 6/6/16 (Item 15 from file: 5) 0002833050 BIOSIS NO.: 198019009539  
STUDY ON IMMUNOLOGICAL RELATIONSHIPS BETWEEN VENOMS OF THE ASIATIC AGKISTRODON 1979
- 6/6/17 (Item 16 from file: 5) 0002715769 BIOSIS NO.: 197968027268  
NEW DATA ON ECOLOGY OF AGKISTRODON - SAXATILIS REPTILA CROTALIDAE FROM THE PRIMORSKI-KRAI 1978
- 6/6/18 (Item 17 from file: 5) 0002402200 BIOSIS NO.: 197865063187

- 6/6/19 (Item 18 from file: 5) 0002220232 BIOSIS NO.: 197764065859  
IMMUNOLOGICAL COMPARISON OF THE REPTILIAN M-4 LACTIC DEHYDROGENASE ISOZYME 1976
- 6/6/20 (Item 19 from file: 5) 0002092072 BIOSIS NO.: 197763012928  
ELECTROPHORESIS OF REPTILIAN BLOOD PROTEINS 1976
- 6/6/21 (Item 20 from file: 5) 0001920742 BIOSIS NO.: 197662016881  
MEDICAL TREATMENT OF SNAKE BITES PART 1 JAPAN AND KOREA 1975
- 6/6/22 (Item 21 from file: 5) 0001430912 BIOSIS NO.: 197458006761  
THE KOREAN SNAKES OF THE GENUS AGKISTRODON CROTALIDAE 1972
- 6/7/5 (Item 4 from file: 5) DIALOG(R)File 5 Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv.  
0012051297 BIOSIS NO.: 199900310957  
RAPD analysis of pit-vipers of the genus Agkistrodon in China  
AUTHOR: Shen Xi (Reprint); Zhou Kai-Ya (Reprint); Wang Yi-Qian (Reprint)  
AUTHOR ADDRESS: Biodiversity and Molecular Evolution Laboratory, Nanjing, 210097, China\*\*China  
JOURNAL: Acta Zoologica Sinica 45 (1): p40-48 March, 1999 1999  
MEDIUM: print ISSN: 0001-7302 DOCUMENT TYPE: Article RECORD TYPE: Abstract LANGUAGE: Chinese  
ABSTRACT: The phylogenetic relationship of pit-vipers of the genus Agkistrodon from China was studied using RAPD technique. Totals of 33 samples of Agkistrodon and 2 samples of Vipera ursinii were used in this study, and phylogenetic relationships were inferred using UPGMA based on 72 RAPD markers which were amplified with 11 decamer primers. Each of the species cluster respectively first. Considerable intraspecific differentiation was found in A. intermedium. A certain genetic distance was detected among A. i. intermedium, A. i. saxatilis and Gansu samples and Nixigsa samples of A. intermedium. A. shedaoensis showed a higher genetic distance to these subspecies (populations) of A. intermedium. The samples of A. brevicaudus from Jiangsu, Zhejiang and Anhui Provinces showed closer relationship among each other than that between them and the samples from Shaanxi Province. The samples of Agkistrodon from high altitude regions of both Gansu and Shaanxi Provinces probably should be referred to A. strauchi. A. ussuriensis is identified as the most basal lineage of the genus Agkistrodon from China. The results of RAPD analysis suggest that the genus Agkistrodon is a highly differentiated group.

- 6/7/7 (Item 6 from file: 5) DIALOG(R)File 5 Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv.  
0007642535 BIOSIS NO.: 199191025426  
IMMUNOCYTOCHEMICAL STUDY ON THE ENTEROENDOCRINE CELLS IN THE GASTROINTESTINAL TRACTS OF THE KOREAN SNAKES  
AUTHOR: JINW J (Reprint); JO U B; CHOI W B  
AUTHOR ADDRESS: DEP BIOL EDUC, PUSAN NATL UNIV, PUSAN, KOREA 609-735\*\*SOUTH KOREA  
JOURNAL: Korean Journal of Zoology 33 (3): p276-296 1990 ISSN: 0440-2510 DOCUMENT TYPE: Article  
RECORD TYPE: Abstract LANGUAGE: KOREAN  
ABSTRACT: This study attempts to investigate several enteroendocrine cells in the gastrointestinal epithelium of the Korean snakes (*Dinodon rufodorsata*, *Rhabdophis tigrina*, *Enhydris rufodorsata*, *Agkistrodon biomhoeffi*, *brevicaud* *Agkistrodon saxatilis*, *Agkistrodon caliginosus*). For a light-microscopical examination of immunocytochemistry, the paraffin sections (5  $\mu$ m) of tissue specimens taken from the various parts of the gastrointestinal tract were stained immunocytochemically by PAP procedure with 10 antisera. The frequency of enteroendocrine cells per unit area (mm<sup>2</sup>) of each mucosa were counted and the shapes of the cells were observed. In *Dinodon rufodorsatum*, *Rhabdophis tigrina*, *Enhydris rufodorsata*, *Agkistrodon caliginosus*, *cholecystokinin* (CCK)-8, gastrin, pancreatic polypeptide (PP) and serotonin cells were observed. But the frequency of these immunoreactive cells differ from each portion of gastrointestinal tracts of all species, respectively. In *Agkistrodon biomhoeffi*, *brevicaudus*, CCK-8, gastrin and serotonin cells were observed. CCK-8 and serotonin cells were found in whole gastrointestinal tracts and gastrin cells were observed in pylorus and mucosa of small intestine. The frequency of these cells was different from each portion. The shapes of CCK-8, gastrin, PP and serotonin cells were pyramidal or oval and closed type in stomach. A large number of these cells were spindle in shape and open type in small intestine and anterior part of large intestine, whereas some cells were closed type. In posterior part of large intestine and rectum these cells were oval in shape and closed type.
- 6/7/8 (Item 7 from file: 5) DIALOG(R)File 5 Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv.  
0007521304 BIOSIS NO.: 199141033930  
COMPARATIVE STUDY OF PROTEIN C ACTIVATORS FROM THE AGKISTRODON SNAKE VENOMS  
AUTHOR: KOGAN A E (Reprint); MAKAROV A N; BOBRUSKIN I D; STRUKOVA S M  
AUTHOR ADDRESS: DEP HUMAN PHYSIOL, BIOL FAC, MOSCOW STATE UNIV, MOSCOW, 119899, USSR\*\*USSR  
JOURNAL: Thrombosis Research 62 (6): p775-780 1991 ISSN: 0049-3848 DOCUMENT TYPE: Article  
RECORD TYPE: Citation LANGUAGE: ENGLISH
- 6/7/11 (Item 10 from file: 5) DIALOG(R)File 5 Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv.  
0005017388 BIOSIS NO.: 198631096267

AUTHOR: TORIBA M (Reprint)  
AUTHOR ADDRESS: JAPAN\*\*JAPAN  
JOURNAL: Japanese Journal of Herpetology 11 (2): p64 1985 CONFERENCE/MEETING: 24TH ANNUAL MEETING OF THE HERPETOLOGICAL SOCIETY OF JAPAN, YOKOSUKA, JAPAN, SEPT. 29, 1985. JPN J HERPETOL. ISSN: 0285-3191  
DOCUMENT TYPE: Meeting RECORD TYPE: Citation LANGUAGE: JAPANESE

67/12 (Item 11 from file: 5) DIALOG(R)File 5:Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv.  
0004654100 BIOSIS NO.: 198579072999  
EFFECTS OF KOREAN SNAKE VENOMS ON THE CONTRACTILITY AND ACTION POTENTIAL OF FROG VENTRICULAR MUSCLE CELLS  
AUTHOR: HAN H-I (Reprint); BANG H-W; UHM D-Y; RHEE S-D  
AUTHOR ADDRESS: DEP PHYSIOL. COLL MED. CHUNG-ANG UNIV, SEOUL 151, KOREA\*\* KOREA  
JOURNAL: Chung-Ang Journal of Medicine 9 (3): p261-268 1984 ISSN: 0253-6250 DOCUMENT TYPE: Article  
RECORD TYPE: Abstract LANGUAGE: KOREAN  
ABSTRACT: To observe the effects of freeze-dried saliva of Agkistrodon caliginosus and A. saxatilis, on the contractility and action potential of frog ventricular muscle cells, the isometric tension in a vertical chamber and the action potential in horizontal chamber were recorded and analyzed. Korean snake venoms decrease the ionic current underlying the rapid upstroke phase and slow inward currents by Ca2+ simultaneously in frog ventricular muscle cells.

67/15 (Item 14 from file: 5) DIALOG(R)File 5:Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv.  
0002885192 BIOSIS NO.: 198019061881  
A MICROBIAL INHIBITORY SUBSTANCE TO SNAKE VENOMS  
AUTHOR: JUNE-HW N S (Reprint); DONG-HEUI Y  
AUTHOR ADDRESS: DEP AGRIC CHEM, COLL AGRIC, KYUNGPOOK NATL UNIV, PUKKU, TAEGU, S KOREA\*\*KOREA  
JOURNAL: Snake 11 (2): p184-198 1979 ISSN: 0386-3425 DOCUMENT TYPE: Article RECORD TYPE: Citation  
LANGUAGE: ENGLISH

67/16 (Item 15 from file: 5) DIALOG(R)File 5:Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv.  
000283050 BIOSIS NO.: 198019095939  
STUDY ON IMMUNOLOGICAL RELATIONSHIPS BETWEEN VENOMS OF THE ASIATIC AGKISTRODON  
AUTHOR: SAWAI Y (Reprint); KAWAMURA Y  
AUTHOR ADDRESS: JPN SNAKE INST, GUNMA, JPN\*\*JAPAN  
JOURNAL: Toxicon 17 (SUPPL. 1): p160 1979 CONFERENCE/MEETING: 6TH INTERNATIONAL SYMPOSIUM ON ANIMAL, PLANT AND MICROBIAL TOXINS, UPPSALA, SWEDEN, AUG. 1979. TOXICON. ISSN: 0041-0101  
DOCUMENT TYPE: Meeting RECORD TYPE: Citation LANGUAGE: ENGLISH

67/17 (Item 16 from file: 5) DIALOG(R)File 5:Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv.  
0002715769 BIOSIS NO.: 197968027268  
NEW DATA ON ECOLOGY OF AGKISTRODON - SAXATILIS REPTILIA CROTALIDAE FROM THE PRIMORSKI-KRAI  
AUTHOR: KOROTKOV YU M (Reprint)  
AUTHOR ADDRESS: BIOL-SOIL INST, FAR EAST SCI CENT, ACAD SCI USSR, VLADIVOSTOK, USSR\*\*USSR  
JOURNAL: Vestnik Zoologii (4): p33-37 1978 ISSN: 0084-5604 DOCUMENT TYPE: Article RECORD TYPE: Abstract  
LANGUAGE: RUSSIAN  
ABSTRACT: A. saxatilis dominates in mountain-forest associations of snakes in Primorski Territory, its occurrence reaches 56-84.5%. Most females have a 2 yr reproductive cycle, some a 3 yr cycle. The reproductive potential in populations is equal to 4.8-7.2. After the 1st wintering about 3.5% of young survive. Adult individuals account for 82-86% of the population number. Populations are located near winter resting-places and are distinguished by ecological and certain morphological characters. The connection between the populations in years of murid number depression is maintained by migrants which probably survive in other wintering places.

67/20 (Item 19 from file: 5) DIALOG(R)File 5:Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv.  
0002092072 BIOSIS NO.: 197763012928  
ELECTROPHORESIS OF REPTILIAN BLOOD PROTEINS  
AUTHOR: PARK S Y; CHO D H  
JOURNAL: Korean Journal of Zoology 19 (1): p33-42 1976 ISSN: 0440-2510 DOCUMENT TYPE: Article  
RECORD TYPE: Abstract LANGUAGE: Unspecified  
ABSTRACT: The blood proteins of 10 reptilian species [Agkistrodon blomhoffii breviceaudus, Agkistrodon caliginosus, Agkistrodon saxatilis, Zamenis spinalis, Elaphe schrenkii, Elaphe diore, Dinodon rufozonatum rufozonatum, Rhabdophis tigrinus, Amyda maackii, Geoclemys reevesii] were studied by cellulose acetate electrophoresis. Three members examined of the genus Agkistrodon had unusually similar patterns in plasma protein, Hb, lactate dehydrogenase and malate dehydrogenase. On the basis of their electrophoretic patterns, it was concluded that A. blomhoffii breviceaudus was closely related to A. saxatilis and that A. caliginosus was somewhat distantly related to the others. In general the plasma protein patterns reflected species specificity. Under the conditions employed, all snakes had a single Hb band except D. rufozonatum

rufozonatum which showed 2 component patterns. Two members of the Chelonia showed 4 bands of Hb. The zymograms indicated a distinct divergence in blood proteins of the Squamata [Bambina orientalis, Rana nigromaculata and Bufo bufo gargarizans] from those of the Chelonia. The results reflected superficially the established phylogenies of these groups.

67/22 (Item 21 from file: 5) DIALOG(R)File 5:Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv.  
0001430912 BIOSIS NO.: 197458006761  
THE KOREAN SNAKES OF THE GENUS AGKISTRODON CROTALIDAE  
AUTHOR: GLOYD H K  
JOURNAL: Proceedings of the Biological Society of Washington 85 (49): p 557-577 1972 ISSN: 0006-324X  
DOCUMENT TYPE: Article RECORD TYPE: Citation LANGUAGE: Unspecified

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N14	14	348: EUROPEAN PATENTS_1978-2004/Nov W04
N15	11	149: TGG Health&Wellness DB(SM)_1976-2004/Oct W5
N16	8	357: Derwent Biotech Res_1982-2004/Dec W2
N17	8	445: IMS R&D Focus_1991-2004/Nov W1
N18	7	434: SciSearch(R) Cited Ref Sci_1974-1989/Dec
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S5	3395	SAXA?
S6	0	S1 AND S5
S7	336053	PLATELET
S8	8	S3 AND S7

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S9 452 (AGKISTRODON OR GRODYDIUS) AND PLATELET



- S10 234 RD (unique items)**  
**S11 4242 SAXATILIS**  
**S12 0 S11 AND S10**  
**S13 4799 SAXA?**  
**S14 0 S10 AND S13**  
**S15 3681 DISINTEGRIN**  
**S16 50 (AGKISTRODON OR GRODYDIUS) AND S16 NOT S9**  
**S17 22 RD (unique items)**
- 2/6/1 (Item 1 from file: 155) 17168495 PMID: 15465006  
A novel P-I class metalloproteinase with broad substrate-cleaving activity, agkistysin, from Agkistrodon acutus venom. Nov 5 2004
- 2/6/2 (Item 2 from file: 155) 16970085 PMID: 15313443  
The effect of post-translational modifications on the hemorragic activity of snake venom metalloproteinases. May 2004
- 2/6/3 (Item 3 from file: 155) 16962382 PMID: 15447053  
Trimeresurus venom inhibition of anti-HPA-1a and anti-HPA-1b antibody binding to human platelets. Dec 1995
- 2/6/4 (Item 4 from file: 155) 16895840 PMID: 15157322  
[Purification and characterization of platelet aggregation inhibitor component from venom of agkistrodon halys pallas] Apr 2004
- 2/6/5 (Item 5 from file: 155) 16641710 PMID: 15066223  
Hemorrhagic activity and mechanism of FIIa, a fibrinolytic enzyme from Agkistrodon acutus venom. Apr 2004
- 2/6/6 (Item 6 from file: 155) 16623510 PMID: 15000893  
cDNA cloning, sequence analysis, and recombinant expression of aktinin beta, a C-type lectin-like protein from Agkistrodon acutus. Mar 2004
- 2/6/7 (Item 7 from file: 155) 16525464 PMID: 15188058  
Cloning and characterization of Adnolitor, a novel disintegrin from the snake venom of Agkistrodon halys breviceaudus stejneger. Jun 2004
- 2/6/8 (Item 8 from file: 155) 16090862 PMID: 14732871  
Purification, gene cloning and expression of an acidic phospholipase A2 from Agkistrodon shedaoensis Zhao. Jan 2004
- 2/6/9 (Item 9 from file: 155) 15958692 PMID: 14861951  
Solution structure of a novel disintegrin, salnosin, from Agkistrodon halys venom. Dec 16 2003
- 2/6/10 (Item 10 from file: 155) 15834078 PMID: 14577148  
[Enzymes of snake venoms] Fermenty zmiennykh iadov. May-Jun 2003
- 2/6/11 (Item 11 from file: 155) 15757257 PMID: 14529736  
Purification and cloning of cysteine-rich proteins from Trimeresurus jerdonii and Naja atra venoms. Oct 2003
- 2/6/12 (Item 12 from file: 155) 15074290 PMID: 12916236  
[Purification and characterization of the fibrinolytic enzyme from Agkistrodon halys halys venom] Vydelenie i svoistva fibrinogenoliticheskogo fermenta iz iada shchitornodnika obyknovennogo (Agkistrodon halys halys). May-Jun 2002
- 2/6/13 (Item 13 from file: 155) 14423333 PMID: 10417418  
Crystallization and preliminary diffraction data of a platelet-aggregation inhibitor from the venom of Agkistrodon piscivorus piscivorus (North American water moccasin). Aug 1999
- 2/6/14 (Item 14 from file: 155) 14412840 PMID: 10406983  
Molecular cloning and functional characterization of a snake venom metalloprotease. Jul 1999
- 2/6/15 (Item 15 from file: 155) 14391244 PMID: 10484740  
Primary structure and biological activity of snake venom lectin (APL) from Agkistrodon p. piscivorus (Eastern cottonmouth). Jul 1999
- 2/6/16 (Item 16 from file: 155) 14306427 PMID: 10209288  
Cloning, expression and biochemical characterization of a basic-acidic hybrid phospholipase A2-II from Agkistrodon halys pallas. Apr 12 1999
- 2/6/17 (Item 17 from file: 155) 14182047 PMID: 9880793  
Ussuristatin 2, a novel KGD-bearing disintegrin from Agkistrodon ussuriensis venom. Jan 1999
- 2/6/18 (Item 18 from file: 155) 14159117 PMID: 9857481  
The relationship between biological activity and the electronic structure and transfer of the whole acidic PLA2 molecule in ab initio level. Nov 16 1998
- 2/6/19 (Item 19 from file: 155) 14156613 PMID: 9856345  
Cloning and characterization of novel disintegrins from Agkistrodon halys venom. Oct 31 1998
- 2/6/20 (Item 20 from file: 155) 14142448 PMID: 9838213  
A new short chain RGD-containing disintegrin, acutin, inhibits the common pathway of human platelet aggregation. Nov 27 1998
- 2/6/21 (Item 21 from file: 155) 14091904 PMID: 9787163  
Acutin, a new disintegrin, inhibits angiogenesis in vitro and in vivo by acting as integrin alpha5beta3 antagonist and inducing apoptosis. Nov 1 1998
- 2/6/22 (Item 22 from file: 155) 14060840 PMID: 9760469  
Biochemical and pharmacological properties of thrombin-like protein from Agkistrodon caliginosus. Jul 1998
- 2/6/23 (Item 23 from file: 155) 14021943 PMID: 9722022  
Purification and molecular cloning of a platelet aggregation inhibitor from the snake (Agkistrodon halys breviceaudus) venom. Jul 15 1998
- 2/6/24 (Item 24 from file: 155) 13988848 PMID: 9690782  
Diversity of cDNAs encoding phospholipase A2 from Agkistrodon halys pallas venom, and its expression in E. coli. Aug 1998
- 2/6/25 (Item 25 from file: 155) 13956270 PMID: 9657448  
The cDNA cloning and molecular characterization of a snake venom platelet glycoprotein Ib-binding protein, mamushigin, from Agkistrodon halys blanfordi venom. Jun 1998
- 2/6/26 (Item 26 from file: 155) 13846945 PMID: 9546675  
Purification and amino acid sequence of halystase from snake venom of Agkistrodon halys blanfordi, a serine protease that cleaves specific fibrinogen and kininogen. Mar 15 1998
- 2/6/27 (Item 27 from file: 155) 13408594 PMID: 9080576  
Glutathione S-transferase-rhodostomin fusion protein inhibits platelet aggregation and induces platelet shape change. Feb 1997
- 2/6/28 (Item 28 from file: 155) 13129177 PMID: 8797081  
Purification and molecular cloning of cabbin, a thrombin-like enzyme from Agkistrodon caliginosus (Korean viper). May 1996
- 2/6/29 (Item 29 from file: 155) 12921360 PMID: 8688217  
Purification and characterization of piscovrase I and II, the fibrinolytic enzymes from eastern cottonmouth moccasin venom (Agkistrodon piscivorus piscivorus). Jul 1995
- 2/6/30 (Item 30 from file: 155) 12871319 PMID: 8585089  
Sequence analysis of fibrinase, a fibrinolytic metalloproteinase from Agkistrodon conortrix conortrix. Sep 1995
- 2/6/31 (Item 31 from file: 155) 12736033 PMID: 7657328  
[Radioabelling and assay of Chinese agkistrodon acutus venom with carrier-free Na 125I] Mar 1995
- 2/6/32 (Item 32 from file: 155) 12675255 PMID: 7597721  
Comparative study of fibrinogen degradation by four arginine ester hydrolases from the venom of Agkistrodon caliginosus (Kankoku-Mamushi). Feb 1995
- 2/6/33 (Item 33 from file: 155) 12634553 PMID: 7755623  
Functional and sequence characterization of agkoelxin, a new glycoprotein Ib antagonist isolated from Agkistrodon acutus venom. off2p4. May 1 1995
- 2/6/34 (Item 34 from file: 155) 12418260 PMID: 12818190  
Anticoagulant activity of M-LAO, L-amino acid oxidase purified from Agkistrodon halys blanfordi, through selective inhibition of factor IX. May 26 2003
- 2/6/35 (Item 35 from file: 155) 12239782 PMID: 12686096  
[Clinical study on effect of Agkistrodon antithrombogenesis in auxiliary treatment of rheumatoid arthritis] Mar 2002
- 2/6/36 (Item 36 from file: 155) 12222293 PMID: 12665859  
cDNA cloning and characterization of Agkistlin, a new metalloproteinase from Agkistrodon halys. Feb 7 2003
- 2/6/37 (Item 37 from file: 155) 12120959 PMID: 12450389  
A new gene structure of the disintegrin family: a subunit of dimeric disintegrin has a short coding region. Dec 3 2002
- 2/6/38 (Item 38 from file: 155) 11829272 PMID: 12019442  
[Purification and characterization of L-amino acid oxidase from Agkistrodon halys pallas venom] May 2002
- 2/6/39 (Item 39 from file: 155) 11818290 PMID: 12008947  
Purification and characterization of a novel metalloproteinase, acurthigin, from Agkistrodon acutus venom. Apr 2002
- 2/6/40 (Item 40 from file: 155) 11736852 PMID: 11914494  
Purification, crystallization and preliminary X-ray crystallographic analysis of agkaggregin, a C-type lectin-like protein from Agkistrodon a venom. Apr 2002
- 2/6/41 (Item 41 from file: 155) 11650071 PMID: 11827724  
Antithrombotic and thrombolytic activities of Agkiscacutin, a snake venom proteinase, in experimental models. Oct 2000
- 2/6/42 (Item 42 from file: 155) 11590380 PMID: 11752794  
Crystallization and preliminary crystallographic studies of dimeric disintegrins from the venom of two Agkistrodon snakes. Jan 2002

- 26/64 (Item 43 from file: 155) 1098118 PMID: 8205048  
[The antithrombotic action of a protein C activator from the venom of Agkistrodon blomhoffi ussuriensis in thrombus formation in an extraoportal shunt in rats] Antitrombotické děstvie aktivátora proteína C iz lada Agkistrodon blomhoffi ussuriensis pri tromboobrazov v ekstrakorporalnom shunte u krys. Mar-Apr 1994
- 26/65 (Item 65 from file: 155) 10057107 PMID: 8178312  
Purification and characterization of platelet aggregation inhibitors from snake venoms. Jan 1 1994
- 26/66 (Item 66 from file: 155) 09900004 PMID: 8246155  
Prevention of experimental carotid artery thrombosis by apyraggin. Nov 1993
- 26/67 (Item 67 from file: 155) 09831079 PMID: 8378894  
Protein C activator from the venom of Agkistrodon blomhoffi ussuriensis retards thrombus formation in the arterio-venous shunt in rats. Jun 1 1993
- 26/68 (Item 68 from file: 155) 09724095 PMID: 1284793  
[Alpha 2 megablobulin inhibits the activation of rabbit platelet by Chinese Agkistrodon acutus venom] Sep 1992
- 26/69 (Item 69 from file: 155) 09688907 PMID: 8481515  
Spreading of platelets on fibrin is mediated by the amino terminus of the beta chain including peptide beta 15-42. May 1 1993
- 26/70 (Item 70 from file: 155) 09584026 PMID: 8423218  
Kistinn, an integrin antagonist, blocks endocytosis of fibrinogen into guinea pig megakaryocyte and platelet alpha-granules. Jan 1993
- 26/71 (Item 71 from file: 155) 09564988 PMID: 1477097  
A novel alpha-type fibrinogenase from Agkistrodon rhodostoma snake venom. Dec 28 1992
- 26/72 (Item 72 from file: 155) 09557860 PMID: 8417803  
Arg-Gly-Asp-dependent occupancy of GPIIb/IIIa by apyraggin: evidence for internalization and cycling of a platelet integrin. Jan 1 1993
- 26/73 (Item 73 from file: 155) 09304568 PMID: 1814829  
[The influence of Chinese Agkistrodon acutus enzyme (CAAE) on the functions of washed human platelets] Sep 1991
- 26/74 (Item 74 from file: 155) 09133964 PMID: 1755841  
A common precursor for a putative hemorragic protein and rhodostomin, a platelet aggregation inhibitor of the venom of Calloselasma rhodostoma: molecular cloning and sequence analysis. Dec 16 1991
- 26/75 (Item 75 from file: 155) 09022128 PMID: 1888330  
Halsyn, an antiplatelet Arg-Gly-Asp-containing snake venom peptide, as fibrinogen receptor antagonist. Aug 22 1991
- 26/76 (Item 76 from file: 155) 08613259 PMID: 1900221  
Kistinn, a polypeptide platelet GPIIb/IIIa receptor antagonist enhances and sustains coronary arterial thrombolysis with recombinant tissue-type plasminogen activator in a canine preparation. Mar 1991
- 26/77 (Item 77 from file: 155) 08743891 PMID: 2260627  
In vivo defibrination results in markedly decreased amounts of fibrinogen in rat megakaryocytes and platelets. Dec 1990
- 26/78 (Item 78 from file: 155) 08583361 PMID: 2365698  
Binding of the snake venom-derived proteins apyraggin and echistatin to the arginine-glycine-aspartic acid recognition site(s) on platelet glycoprotein IIb-IIIa complex inhibits receptor function. Jul 15 1990
- 26/79 (Item 79 from file: 155) 08484100 PMID: 2320569  
Platelet glycoprotein IIb-IIIa protein antagonists from snake venoms: evidence for a family of platelet aggregation inhibitors. Apr 1990
- 26/80 (Item 80 from file: 155) 08330129 PMID: 2530646  
Platelet aggregation is stimulated by ketose-inhibitable snake venom lectins. Sep 29 1989
- 26/81 (Item 81 from file: 155) 08327045 PMID: 2510158  
Agkistrodon piscivorus piscivorus platelet aggregation inhibitor: a potent inhibitor of platelet activation. Oct 1989
- 26/82 (Item 82 from file: 155) 08207604 PMID: 2749764  
Isolation of an acidic phospholipase A2 from the venom of Agkistrodon acutus (five pace snake) and its effect on platelet aggregation. 1989
- 26/83 (Item 83 from file: 155) 08065369 PMID: 3235451  
The primary structure of rat platelet phospholipase A2. Nov 1988
- 26/84 (Item 84 from file: 155) 07817312 PMID: 3291184  
Comparison of the platelet aggregation induced by three thrombin-like enzymes of snake venoms and thrombin. Apr 8 1988
- 26/85 (Item 85 from file: 155) 07758709 PMID: 3363567  
Venom from southern copperhead snake ( Agkistrodon contortrix contortrix). II. A unique phospholipase A2 that induces platelet aggregation. 1988
- 26/43 (Item 43 from file: 155) 11590370 PMID: 11752784  
Structure of an acidic phospholipase A2 from the venom of Deinagkistrodon acutus. Jan 2002
- 26/44 (Item 44 from file: 155) 11562851 PMID: 11816718  
Bithexin, a snake C-type lectin from Agkistrodon bilineatus venom agglutinates platelets via GPIb and alpha2beta1. Nov 2001
- 26/45 (Item 45 from file: 155) 11518365 PMID: 11886327  
A novel tetrameric venom protein, agglutinin from Agkistrodon acutus, acts as a glycoprotein Ib agonist. Oct 2001
- 26/46 (Item 46 from file: 155) 11491209 PMID: 11600152  
Cloning of cDNAs encoding C-type lectins from Elapidae snakes Bungarus fasciatus and Bungarus multicinctus. Dec 2001
- 26/47 (Item 47 from file: 155) 11432749 PMID: 11530017  
Purification and characterization of a new RGD/KGD-containing dimeric disintegrin, piscivostatin, from the venom of Agkistrodon piscivorus piscivorus: the unique effect of piscivostatin on platelet aggregation. Sep 2001
- 26/48 (Item 48 from file: 155) 11375940 PMID: 11468397  
Crystallization and preliminary X-ray analysis of jararagin, a metalloproteinase/disintegrin from Bothrops jararaca snake venom. Aug 2001
- 26/49 (Item 49 from file: 155) 11312730 PMID: 11287424  
Aggrexin, a heterodimeric C-type lectin from Calloselasma rhodostoma (malayan pit viper), stimulates platelets by binding to alpha 2beta 1 integrin and glycoprotein Ib, activating Syk and phospholipase Cgamma 2, but does not involve the glycoprotein V/IIb receptor gamma chain collagen receptor. Jun 15 2001
- 26/50 (Item 50 from file: 155) 11282287 PMID: 11338309  
Chimeric derivative of fibronase, a fibrinolytic enzyme from southern copperhead venom, possesses inhibitory activity on platelet aggregation. Dec 15 2000
- 26/51 (Item 51 from file: 155) 11264575 PMID: 11341935  
Molecular characterization of -amino acid oxidase from Agkistrodon hays blomhoffi with special reference to platelet aggregation. Jan 12 2001
- 26/52 (Item 52 from file: 155) 11164739 PMID: 11181425  
Pharmacological characterization and antithrombotic effect of agkistatin, a platelet glycoprotein Ib antagonist. Feb 2001
- 26/53 (Item 53 from file: 155) 11163086 PMID: 11159446  
Toward understanding interfacial activation of secretory phospholipase A2 (PLA2): membrane surface properties and membrane-induced structural changes in the enzyme contribute synergistically to PLA2 activation. Feb 2001
- 26/54 (Item 54 from file: 155) 11070047 PMID: 11155525  
Purification, characterization, and cDNA sequence of halsyn, a disintegrin-like/cysteine-rich protein from the venom of Agkistrodon hays Pallas. Nov 11 2000
- 26/55 (Item 55 from file: 155) 10855721 PMID: 10987142  
Characterization and cDNA cloning of a platelet aggregation inhibitor. Aug 31 2000
- 26/56 (Item 56 from file: 155) 10748058 PMID: 10871053  
Isolation of a proteinase with plasminogen-activating activity from Lachesis muta muta (bushmaster) snake venom. Jun 1 2000
- 26/57 (Item 57 from file: 155) 10748043 PMID: 10871038  
Primary structure and functional characterization of biltoxin-1, a novel dimeric P-II snake venom metalloproteinase from Agkistrodon bilineatus venom. Jun 1 2000
- 26/58 (Item 58 from file: 155) 10650699 PMID: 10758271  
Hemostatic disturbances observed in patients with snakebite in south China. Oct 2000
- 26/59 (Item 59 from file: 155) 10596527 PMID: 10700385  
Phospholipase A(2) with platelet aggregation inhibitor activity from Austrelaps superbus venom: protein purification and cDNA cloning. Mar 15 2000
- 26/60 (Item 60 from file: 155) 10596526 PMID: 10700384  
Molecular cloning and functional expression of contortrostatin, a homodimeric disintegrin from southern copperhead snake venom. Mar 15 2000
- 26/61 (Item 61 from file: 155) 10492730 PMID: 10591036  
Purification and characterization of the venom phospholipases A2 from Asian monotypic crotalines snakes. Oct 1999
- 26/62 (Item 62 from file: 155) 10208916 PMID: 8092274  
Effects of ATP on Igand recognition of platelet fibrinogen receptor on GPIIb-IIIa. Sep 1994
- 26/63 (Item 63 from file: 155) 10183448 PMID: 8070769  
[Experimental study of Chinese Agkistrodon acutus venom in activation of rabbit platelets in vivo] Mar 1994

- 2/6/86 (Item 86 from file: 155) 07598569 PMID: 3313813  
Venom from southern copperhead snake (Agkistrodon contortrix contortrix). I. Characterization of a protease that preferentially releases fibrinogen B. 1987
- 2/6/87 (Item 87 from file: 155) 07528713 PMID: 3620499  
Characterization of a potent platelet aggregation inhibitor from Agkistrodon rhodostoma snake venom. Sep 11 1987
- 2/6/88 (Item 88 from file: 155) 07521984 PMID: 3617077  
Characterization of the structure and function of three phospholipases A2 from the venom of Agkistrodon halys pallas. 1987
- 2/6/89 (Item 89 from file: 155) 07409057 PMID: 3031852  
Platelet aggregation inhibitors from Agkistrodon acutus snake venom. 1986
- 2/6/90 (Item 90 from file: 155) 06612362 PMID: 6148104  
Rabbit platelet calcium ATPase differs from the human erythrocyte (Ca2+ + Mg2+)-ATPase in its response to three purified phospholipases A2, exogenous phospholipids and calmodulin. Oct 3 1984
- 2/6/91 (Item 91 from file: 155) 06535587 PMID: 6427979  
Mechanism of action of the platelet aggregation inhibitor purified from Agkistrodon halys (mamushi) snake venom. 1984
- 2/6/92 (Item 92 from file: 155) 06334113 PMID: 6419392  
A potent platelet aggregation inhibitor purified from Agkistrodon halys (mamushi) snake venom. 1983
- 2/6/93 (Item 93 from file: 155) 04934166 PMID: 153013  
In vivo effects of the purified thrombin-like and anticoagulant principles of Agkistrodon acutus (hundred pace snake) venom. 1978
- 2/6/94 (Item 94 from file: 155) 04324886 PMID: 953985  
Effect of defibrination on tumor growth and response to chemotherapy. Oct 1976
- 2/6/95 (Item 95 from file: 155) 04281322 PMID: 1227762  
[Activity against clotting and platelet aggregation of the anticoagulant fraction of venom from Agkistrodon rhodostoma] Attivita anticoagulante e antiaggregante piastrinica della frazione anticoagulante del veleno di Agkistrodon rhodostoma Oct 31 1975
- 2/6/96 (Item 1 from file: 5) 0014722195 BIOSIS NO.: 200400090964  
Purification and characterization of phospholipase A2 homologue from the mamushi (Agkistrodon blomhoffi ussuriensis) snake venom. 2003
- 2/6/97 (Item 2 from file: 5) 0014677742 BIOSIS NO.: 200400058499  
Purification and characterization of the fibrinolytic enzyme from Agkistrodon halys snake venom. 2002
- 2/6/98 (Item 3 from file: 5) 0014538037 BIOSIS NO.: 200300495694  
A tetrameric glycoprotein lb-binding protein, agglutinin, from Formosan pit viper: Structure and interaction with human platelets. 2003
- 2/6/99 (Item 4 from file: 5) 0014535951 BIOSIS NO.: 200300493608  
Pedicant rattlesnake envenomation with neurotoxicity refractory to treatment with crotaline Fab antivenom. 2003
- 2/6/100 (Item 5 from file: 5) 0013699534 BIOSIS NO.: 20020293045  
Diagnostic uses of snake venom. 2001
- 2/6/101 (Item 6 from file: 5) 0013353643 BIOSIS NO.: 200100525482  
A novel tetrameric venom protein, agglutinin from Agkistrodon acutus, acts as a glycoprotein lb agonist 2001
- 2/6/102 (Item 7 from file: 5) 0013000073 BIOSIS NO.: 200100171912  
Identification of key residues responsible for enzymatic and platelet -aggregation-inhibiting activities of acidic phospholipase A2S from Agkistrodon halys Pallas 2001
- 2/6/103 (Item 8 from file: 5) 0012701086 BIOSIS NO.: 200000419399  
Coniortostatin, a snake venom disintegrin, induces aphaeretic-mediated tyrosine phosphorylation of CAS and FAK in tumor cells 2000
- 2/6/104 (Item 9 from file: 5) 0012648732 BIOSIS NO.: 200000367045  
Expression and purification of recombinant salmosin, a potent platelet aggregation inhibitor in Pichia pastoris 2000
- 2/6/105 (Item 10 from file: 5) 0011974515 BIOSIS NO.: 199900234275  
Recurrent and persistent coagulopathy following pit viper envenomation 1999
- 2/6/106 (Item 11 from file: 5) 0011942250 BIOSIS NO.: 199900201910  
The interaction of anorod with human platelets 1999
- 2/6/107 (Item 12 from file: 5) 0011875214 BIOSIS NO.: 199900134874  
Structure of a snake venom phospholipase A2 inhibited by P-bromo-phenacyl-bromide 1998
- 2/6/108 (Item 13 from file: 5) 0011863015 BIOSIS NO.: 199900122675
- 2/6/109 (Item 14 from file: 5) 0011862612 BIOSIS NO.: 199900122272  
The treatment of acute renal failure following mamushi bite by hemofiltration and hemodialfiltration 1998
- 2/6/110 (Item 15 from file: 5) 0011710795 BIOSIS NO.: 199800505042  
Analysis of the potent platelet glycoprotein lb-IIIa antagonist from natural sources 1998
- 2/6/111 (Item 16 from file: 5) 0011235647 BIOSIS NO.: 19980029894  
Application of recombinant rhodostomin in studying cell adhesion 1997
- 2/6/112 (Item 17 from file: 5) 0010651733 BIOSIS NO.: 199799285793  
Snake venom proteins modulating the interaction between von Willebrand factor and platelet glycoprotein lb 1996
- 2/6/113 (Item 18 from file: 5) 0010376491 BIOSIS NO.: 199699010551  
Characterisation of platelet aggregation induced by PC-3 human prostate adenocarcinoma cells and inhibited by venom peptides, trigranin an rhodostomin 1996
- 2/6/114 (Item 19 from file: 5) 0010206380 BIOSIS NO.: 199698674213  
Crystal structure of an acidic phospholipase A-2 from the venom of Agkistrodon halys pallas at 2.0 A resolution 1996
- 2/6/115 (Item 20 from file: 5) 0010040262 BIOSIS NO.: 199598508095  
Do we know the complete sequence of metalloproteinase and nonenzymatic platelet aggregation inhibitor (disintegrin) precursor proteins? 199
- 2/6/116 (Item 21 from file: 5) 0009854049 BIOSIS NO.: 199598321882  
Functional and sequence characterization of agkietin, a new glycoprotein lb antagonist isolated from Agkistrodon acutus venom 1995
- 2/6/117 (Item 22 from file: 5) 0009474329 BIOSIS NO.: 199497495614  
Hayastatin, a novel disintegrin from Agkistrodon halys, is a potent inhibitor of bone resorption and platelet aggregation 1994
- 2/6/118 (Item 23 from file: 5) 0005342504 BIOSIS NO.: 199497363789  
Antithrombotic action of the protein C activator from the venom of Agkistrodon blomhoffi ussuriensis upon thrombosis in the extracorporeal sh in rats 1994
- 2/6/119 (Item 24 from file: 5) 0009057945 BIOSIS NO.: 199497079230  
Synthetic RGD peptides derived from the adhesive domains of snake-venom proteins: Evaluation as inhibitors of platelet aggregation 1993
- 2/6/120 (Item 25 from file: 5) 0008894010 BIOSIS NO.: 199396058426  
Interpretation of low postmortem concentrations of ethanol 1993
- 2/6/121 (Item 26 from file: 5) 0008802114 BIOSIS NO.: 199395104380  
Binding interactions of kistinn with platelet glycoprotein lb-IIIa: Analysis by site-directed mutagenesis 1993
- 2/6/122 (Item 27 from file: 5) 0008751652 BIOSIS NO.: 199395053918  
Experimental studies on the mode and amount of Svine-3 administration in thrombolytic therapy 1992
- 2/6/123 (Item 28 from file: 5) 0008575035 BIOSIS NO.: 199345005015  
Binding of factor VIII to platelets is inhibited by phosphatidylserine-binding proteins from snake venoms 1992
- 2/6/124 (Item 29 from file: 5) 0008165516 BIOSIS NO.: 199293008407  
EFFECTIVENESS OF ARGININE LIPIDASE SVATE SEPARATED FROM ZHEJIANG CHINA MAMUSHI AGKISTRODON -BLOMHOFFII-BREVICAUDUS VENOM APPLIED FOR THE TREATMENT OF 3323 CASES OF CEREBRAL THROMBOSIS 1991
- 2/6/125 (Item 30 from file: 5) 0008131008 BIOSIS NO.: 199243099599  
CRYSTALS OF A PLATELET AGGREGATION INHIBITOR THE ACIDIC PLA-2 FROM THE VENOM OF AGKISTRODON -HALYS-PALLAS 19
- 2/6/126 (Item 31 from file: 5) 0008070644 BIOSIS NO.: 19924308235  
PURIFICATION AND CHARACTERIZATION OF THREE PLATELET AGGREGATION INHIBITORS 1992
- 2/6/127 (Item 32 from file: 5) 0007814019 BIOSIS NO.: 199192059790  
IDENTIFICATION OF 50 KDA SNAKE VENOM PROTEINS WHICH SPECIFICALLY INHIBIT PLATELET ADHESION TO COLLAGEN 1991
- 2/6/128 (Item 33 from file: 5) 0007309328 BIOSIS NO.: 199090093805  
BINDING OF THE SNAKE VENOM-DERIVED PROTEINS APPLAGIN AND ECHISTATIN TO THE ARGININE GLYCINE ASPARTIC ACID RECOGNITION SITES ON PLATELET GLYCOPROTEIN IIB GLYCOPROTEIN IIIA COMPLEX INHIBITS RECEPTOR FUNCTION 1990
- 2/6/129 (Item 34 from file: 5) 0006807724 BIOSIS NO.: 198988122839  
HEMATOLOGICAL STUDIES ON NATURALLY OCCURRING SUBSTANCES II. EFFECTS OF ANIMAL CRUDE DRUGS ON BLOOD COAGULATION AND FIBRINOLYSIS SYSTEMS 1989
- 2/6/130 (Item 35 from file: 5) 0005473181 BIOSIS NO.: 198733079786

- produce metalloprotease and disintegrin; this processing was accompanied by significant changes in the substrate specificity of the enzyme activity. Experimental evidence strongly suggests that the disintegrin domain in the metalloprotease precursor modulates the catalytic function of the enzyme in hydrolysing extracellular matrix proteins. Record Date Created: 19990826 Record Date Completed: 19990826
- 27/115 (Item 15 from file: 155) DIALOG(R)File 155:MEDLINE(R) (c) format only 2004 The Dialog Corp. All rts. reserv.
- 14391244 PMID: 10484740  
Primary structure and biological activity of snake venom lectin (APL) from Agkistrodon p. piscivorus (Eastern cottonmouth Komori Y; Nikai T; Tohka T; Sugihara H  
Department of Microbiology, Faculty of Pharmacy, Meijo University, Nagoya, Japan. ykomori@meijo-u.ac.jp  
Toxicol - official journal of the International Society on Toxicology (ENGLAND) Jul 1999, 37 (7) p1053-64, ISSN 0041-0 Journal Code: 1307333 Document type: Journal Article Languages: ENGLISH Main Citation Owner: NLM Record type: Completed
- A lectin (APL) was purified from the venom of Agkistrodon piscivorus piscivorus (Eastern cottonmouth moccasin). APL is a disulfide-linked, homodimeric protein consisting of identical monomers of molecular weight 16,200. Native rabbit and human erythrocytes were agglutinated by APL and the activity was found to be calcium-dependent. Galactose, lactose, fructose and EGTA strongly inhibited the hemagglutination activity of APL. The complete amino acid sequence determined by Edman sequencing of the S-pyridylethylated derivative and its peptides derived from enzymatic digestion indicate the structure of APL be highly homologous with lectins and the platelet glycoprotein Ib (GPIb)-binding proteins isolated from other snake venoms. These results suggest that APL belongs to the C-type beta-galactoside binding lectin family which possess structural similarity with the C-terminal carbohydrate-recognition domain (CRD) of animal membrane lectins. Record Date Created: 19990903 Record Date Completed: 19990903
- 27/117 (Item 17 from file: 155) DIALOG(R)File 155:MEDLINE(R) (c) format only 2004 The Dialog Corp. All rts. reserv.
- 14182047 PMID: 9880793  
Ussuriastatin 2, a novel KGD-bearing disintegrin from Agkistrodon ussuriensis venom  
Oshikawa K; Terada S  
Department of Chemistry, Faculty of Science, Fukuoka University, Jonan-ku, Fukuoka, 814-0180, Japan.  
Journal of biochemistry (JAPAN) Jan 1999, 125 (1) p31-5 ISSN 0021-924X Journal Code: 0376600  
Document type: Journal Article Languages: ENGLISH Main Citation Owner: NLM Record type: Completed
- Two platelet aggregation inhibitors, ussuriastatin 1 (US-1) and 2 (US-2), were newly isolated from the venom of Chinese viper Agkistrodon ussuriensis by SP-Toyopearl 650M column chromatography and reverse-phase HPLC. The Mrs of these polypeptides were estimated to be about 8,000 by SDS-PAGE. Analytical gel filtration revealed that US-2 exists as a dimer. Bo polypeptides comprised 71 amino acids, whose sequences showed high similarities to those of other disintegrins. US-1 had a typical Arg-Gly-Asp (RGD) sequence, which is responsible for blocking the binding of fibrinogen to the receptor. In US-2, the corresponding sequence was Lys-Gly-Asp (KGD). US-1 strongly suppressed platelet aggregation induced by ADP, collagen, thrombin, and epinephrine with IC50 = 17-33 nM. US-2 also inhibited the platelet aggregation, but the IC50s were about ten times higher. US-1 also dose-dependently inhibited the adhesion of human melanoma cells to fibrinogen and fibronectin, while US-2 not inhibit the cell adhesion to fibronectin. This indicates that the KGD-bearing disintegrin is a specific inhibitor for the fibrinogen receptor. Record Date Created: 19990429 Record Date Completed: 19990429
- 27/120 (Item 20 from file: 155) DIALOG(R)File 155:MEDLINE(R) (c) format only 2004 The Dialog Corp. All rts. reserv.
- 14142448 PMID: 9838213  
A new short chain RGD-containing disintegrin, acutinin, inhibits the common pathway of human platelet aggregation.  
Yeh C H; Peng H C; Yih J B; Huang T F  
Pharmacological Institute, College of Medicine, National Taiwan University, No. 1, Sec. 1, Jen-Ai Rd, Taipei, Taiwan.  
Biochimica et biophysica acta (NETHERLANDS) Nov 27 1998, 1425 (3) p493-504, ISSN 0006-3002 Journal Code: 02175  
Document type: Journal Article Languages: ENGLISH Main Citation Owner: NLM Record type: Completed
- A new short-chain disintegrin, acutinin, was purified from the Formosan Agkistrodon acutus venom by using of gel filtration, ion exchanger and reverse phase HPLC. The homogeneous protein is a 47-residue polypeptide with a molecular mass of 5241 D containing an Arg-Gly-Asp sequence and seven cysteinyl residues at positions highly homologous to other disintegrins. Acutinin dose-dependently inhibited human platelet aggregation stimulated by ADP, collagen, thrombin or the thromboxane analogue U46619 in platelet suspension with IC50 values of 66-267 nM. It was also active in inhibiting platelet aggregation of platelet- $\alpha$ IIb/3a. However, acutinin apparently did not affect the shape change caused by these agonists. Acutinin also inhibited fibrinogen induced aggregation of human elastase-treated platelets in a dose-dependent manner. Furthermore, acutinin dose-dependently inhibited the binding reaction of fluorescein isothiocyanate (FITC)-conjugated arietin, a member of the disintegrin family, to human platelets. In addition, the binding of FITC-conjugated acutinin to platelets was almost completely blocked by a monoclonal antibody, 7E3, raised against the platelet glycoprotein IIb/3a complex. On the other hand, acutinin as well as other disintegrins rhodostomin and arietin, exhibited an inhibitory effect on 7E3 binding toward platelets and endothelial cells in a dose-dependent manner. It is concluded that acutinin, a new platelet aggregation inhibitor belonging to the short-chain disintegrin family, acts specifically on a binding epitope of GPIIb/3a overlapping with that of 7E3, leading to the blockade of fibrinogen binding to its receptor. Record Date Created: 19990128 Record Date Completed: 19990128
- THE EFFECTS OF THE VENOM OF AGKISTRODON -HALYS PALLAS FROM ZHEJIANG CHINA ON HUMAN PLATELET AGGREGATION 1986
- 26/131 (Item 36 from file: 5) 0005173864 BIOSIS NO.: 198682020251  
INHIBITION OF RABBIT PLATELET AGGREGATION BY ALPHA FIBRINOGENASE PURIFIED FROM CALLOSELASMMA-RHODOSTOMA MALAYAN PIT VIPER VENOM 1985
- 26/132 (Item 37 from file: 5) 0004638896 BIOSIS NO.: 198579057895  
RABBIT PLATELET CALCIUM ATPASE DIFFERS FROM THE HUMAN ERYTHROCYTE CALCIUM MAGNESIUM ATPASE IN ITS RESPONSE TO 3 PURIFIED PHOSPHOLIPASES A-2 EXOGENOUS PHOSPHOLIPIDS AND CALMODULIN 1984
- 26/133 (Item 38 from file: 5) 0004312578 BIOSIS NO.: 198478047985  
MECHANISM OF ACTION OF THE PLATELET AGGREGATION INHIBITOR PURIFIED FROM AGKISTRODON -HALYS SNAKE VENOM 1984
- 26/134 (Item 39 from file: 5) 0004173572 BIOSIS NO.: 198477005483  
THE EFFECT OF THE DEF BRASE OF AGKISTRODON ACUTINUS VENOM ON BLOOD COAGULATION SYSTEM IN RABBITS BOTH IN-VITRO AND IN-VIVO 1982
- 26/135 (Item 40 from file: 5) 0003683825 BIOSIS NO.: 198375052168  
DEFIBRATION WITH ANCORD IN GLOMERULO NEPHRITIS EFFECTS ON CLINICAL AND HISTOLOGIC FINDINGS AND ON BLOOD COAGULATION 1982
- 26/136 (Item 41 from file: 5) 0003791297 BIOSIS NO.: 198325050240  
MODULATION OF ERYTHROCYTE AND PLATELET CALCIUM II MAGNESIUM II ATPASE ACTIVITIES BY ACIDIC NEUTRAL AND BASIC PHOSPHOLIPASES A-2 CALMODULIN AND BY DIFFERENT PHOSPHOLIPIDS INCLUDING PLATELET ACTIVATING FACTOR 1983
- 26/137 (Item 42 from file: 5) 0003216172 BIOSIS NO.: 198171035131  
CHARACTERISTICS OF A THROMBIN LIKE SUBSTANCE SNAKE VENOM ANCORD AGKISTRODON -RHODOSTOMA FROM THE VIEWPOINT OF COAGULATION FIBRINOLYSIS 1980
- 26/138 (Item 43 from file: 5)  
0003050734 BIOSIS NO.: 198070082221 STUDIES ON COAGULATION FIBRINOLYTIC ACTIVITY OF SNAKE VENOMS 1979
- 26/139 (Item 44 from file: 5) 0001037164 BIOSIS NO.: 19730923641  
PLASMA FIBRINOGEN RECOVERY RATE AFTER ADMINISTRATION OF MALAYAN PIT VIPER VENOM EXTRACTS IN NONSTRESSED AND SURGICALLY STRESSED ANIMALS 1972
- 27/113 (Item 13 from file: 155) DIALOG(R)File 155:MEDLINE(R) (c) format only 2004 The Dialog Corp. All rts. reserv.
- 14423333 PMID: 10417418  
Crystallization and preliminary diffraction data of a platelet-aggregation inhibitor from the venom of Agkistrodon piscivorus piscivorus (North American water moccasin).  
Arni R K; Padmanabhan K P; Tulinsky A  
Department of Physics, IILCE/UNESP, CP 136, Sao Jose do Rio Preto-SP, CEP 15054-000, Brazil.  
Acta crystallographica. Section D. Biological crystallography (DENMARK) Aug 1999, 55 (Pt 8) p1468-70, ISSN 0907-4449 Journal Code: 9305878 Contract/Grant No.: HL25942; HL; NHLBI Document type: Journal Article Languages: ENGLISH Main Citation Owner: NLM Record type: Completed
- Applaggin (Agkistrodon piscivorus piscivorus platelet-aggregation inhibitor) is a potent inhibitor of blood platelet aggregation derived from the venom of the North American water moccasin. The protein consists of 71 amino acids, is rich in cysteines, contains the sequence-recognition site of adhesion proteins at positions 50-52 (Arg-Gly-Asp) and shares high sequence homology with other snake-venom disintegrins such as echistatin, kistirin and trigramin. Single crystals of applaggin have been grown and X-ray diffraction data have been collected to a resolution of 3.2 A. The crystals belong to space group P4(1)2(1)2 (or its enantiomorph), with unit-cell dimensions a = b = 63.35, c = 74.18 A and two molecules per asymmetric unit. Molecular replacement using models constructed from the NMR structures of echistatin and kistirin has not been successful in producing a trial structure for applaggin. Record Date Created: 19990923 Record Date Completed: 19990923
- 27/114 (Item 14 from file: 155) DIALOG(R)File 155:MEDLINE(R) (c) format only 2004 The Dialog Corp. All rts. reserv.
- 14412840 PMID: 10406963  
Molecular cloning and functional characterization of a snake venom metalloprotease.  
Jeon O H; Kim D S  
Department of Biochemistry, College of Science, and Bioproducts Research Center, Yonsei University, Seoul, Korea.  
European journal of biochemistry / FEBS (GERMANY) Jul 1999, 263 (2) p526-33, ISSN 0014-2956 Journal Code: 0107600  
Document type: Journal Article Languages: ENGLISH Main Citation Owner: NLM Record type: Completed
- A cDNA clone, MT-d, encoding metalloprotease precursor was isolated from snake (Agkistrodon halys breviceaudus) venom gland cDNA library. MT-d-I protein containing both metalloprotease and disintegrin domains, and MT-d-II protein containing the metalloprotease domain only were expressed in Escherichia coli and refolded successfully into their functional forms. Each of the refolded enzyme species exhibited distinct substrate specificity. Proteolytic activity of the MT-d-I was able to hydrolyse type I gelatin, type-II and V collagens in contrast with the catalytic function of MT-d-II. MT-d-I protein having metalloprotease activity was also able to inhibit platelet aggregation. Functionally active MT-d-I protein underwent autolytic processing in vitro to

2/25/23 (Item 23 from file: 155) DIALOG(R)File 155:MEDLINE(R) (c) format only 2004 The Dialog Corp. All rts. reserv.  
14021943 PMID: 9722022  
Purification and molecular cloning of a platelet aggregation inhibitor from the snake ( Agkistrodon halys breviceaudus) venom.  
Kang I C; Chung K H; Lee S Y; Yun Y; Moon H M; Kim D S  
Protein Laboratory, Mogan Biotechnology Research Institute, Yongin-city, Kyonggi-do, Korea  
Thrombosis research (UNITED STATES) Jul 15 1998; 91 (2): p65-73. ISSN 0049-3848 Journal Code: 0326377  
Document type: Journal Article Languages: ENGLISH Main Citation Owner: NLM Record type: Completed  
A platelet glycoprotein IIb/IIIa (GP IIb/IIIa) antagonist, salmosin, was purified to homogeneity from Korean snake (Agkistrodon halys breviceaudus) venom by means of chromatographic fractionations. We have isolated the cDNA encoding salmosin by using the cDNA library of the snake venom gland and analyzed its complete nucleotide sequence. The molecular identity was confirmed by comparison of the deduced amino acid sequence with the directly determined primary structure of salmosin. This protein is a single-chain polypeptide composed of 73 amino acids including 12 cysteines as well as the sequence Arg-Gly-Asp, a proposed recognition site of adhesive proteins. The primary sequence of salmosin shows considerable homology to previously described proteins of snake venom GP IIb/IIIa antagonist family. A molecular mass of 7474 for the protein was determined by matrix-assisted laser desorption/ionization mass spectrometry. Salmosin inhibits GP IIb/IIIa binding to immobilized fibrinogen with an IC50 of 2.2 nM and ADP-induced platelet aggregation with an IC50 of 131 nM, respectively. This work demonstrates the purification, characterization, and cDNA cloning of salmosin, a platelet aggregation inhibitor that may have therapeutic potential as an antithrombotic agent. Record Date Created: 19981120 Record Date Completed: 19981120  
Tags: Human; Support, Non-U.S. Gov't Descriptors: \*Agkistrodon; \*Crotalid Venoms--chemistry--CH; \* Platelet Aggregation Inhibitors--isolation and purification--IP; Amino Acid Sequence; Animals; Cloning, Molecular; Crotalid Venoms--genetics--GE; Crotalid Venoms--isolation and purification--IP; Crotalid Venoms--pharmacology--PD; DNA, Complementary--genetics--GE; Molecular Sequence Data; Platelet Aggregation--drug effects--DE; Platelet Aggregation Inhibitors--pharmacology--PD; Platelet Glycoprotein GP IIb/IIIa Complex --antagonists and inhibitors--AI; Proteins--genetics--GE; Proteins --isolation and purification--IP; Proteins--pharmacology--PD CAS Registry No.: 0 (Crotalid Venoms), 0 (DNA, Complementary); 0 (Platelet Aggregation Inhibitors); 0 (Platelet Glycoprotein GP IIb/IIIa Complex); 0 (Proteins); 0 (salmosin)

2/7/55 (Item 55 from file: 155) DIALOG(R)File 155:MEDLINE(R) (c) format only 2004 The Dialog Corp. All rts. reserv.  
10855721 PMID: 10987142  
Characterization and cDNA cloning of a platelet aggregation inhibitor.  
Koh Y S; Kim D S

Department of Biochemistry, College of Science, Yonsei University, Seoul, Korea.  
Molecules and cells (KOREA (SOUTH)) Aug 31 2000; 10 (4): p437-42. ISSN 1016-8478 Journal Code: 96109336  
Document type: Journal Article Languages: ENGLISH Main Citation Owner: NLM Record type: Completed  
A novel platelet aggregation inhibitor, sal-C, was purified to homogeneity from the venom of Korean snake ( Agkistrodon halys breviceaudus). Several lines of experimental evidence clearly indicated that sal-C inhibits not only the collagen-induced platelet aggregation but also the aggregation mediated by the cell surface glycoprotein IIb/IIIa (GP IIb/IIIa). We have isolated the cDNA encoding sal-C from the cDNA library of the snake venom gland and analyzed its complete nucleotide sequence. Sal-C is a single-chain polypeptide composed of 212 amino acids including 24 cysteines. The deduced polypeptide sequence of sal-C demonstrated considerable homology to previously described protein species of the collagen-induced platelet aggregation inhibitor family. Sal-C does not have the Arg-Gly-Asp (RGD) motif but contains the Ser-Glu-Cys-Asp sequence. Interestingly, sal-C was found to inhibit GP IIb/IIIa binding to immobilized fibrinogen which is antagonized by the typical RGD motif of disintegrins. Record Date Created: 20001212 Record Date Completed: 20010118

2/7/65 (Item 65 from file: 155) DIALOG(R)File 155:MEDLINE(R) (c) format only 2004 The Dialog Corp. All rts. reserv.  
10067107 PMID: 8178312  
Purification and characterization of platelet aggregation inhibitors from snake venoms

Trikha M; Rote W E; Manley P J; Lucchesi B R; Markland F S  
Department of Biochemistry and Molecular Biology, University of Southern California, School of Medicine, Los Angeles 90033  
Thrombosis research (UNITED STATES) Jan 1 1994; 73 (1): p39-52. ISSN 0049-3848 Journal Code: 0326377  
Contract/Grant No.: HL19782-15; HL; NHLBI; RO3CA54861; CA; NCI Document type: Journal Article Languages: ENGLISH  
Main Citation Owner: NLM Record type: Completed

Proteins that inhibit glycoprotein (GP) IIb/IIIa mediated platelet aggregation have been purified from the venom of two snake species. A small platelet aggregation inhibitor (p1 AI), multiquanatin (Mr = 5,700), was purified from Echis multisquamatus venom by hydrophobic interaction HPLC and two steps on C18 reverse phase HPLC. A larger p1 AI, conortrostatin (Mr = 15,000), was purified by a similar HPLC procedure from the venom of Agkistrodon contortrix contortrix. Both p1 AIs inhibit ADP-induced human, canine and rabbit platelet aggregation using platelet rich plasma (PRP). Multiquanatin has an IC50 of 97 nM, 281 nM and 333 nM for human, canine and rabbit PRP, respectively. Conortrostatin has an IC50 of 49 nM, 120 nM and 1,150 nM for human, canine and rabbit PRP, respectively. In a competitive binding assay using 125I-7E3 (a monoclonal antibody to GP IIb/IIIa that inhibits platelet aggregation) both conortrostatin and multiquanatin demonstrated GP IIb/IIIa specific binding to human and canine platelets. The IC50 for conortrostatin displacement of 7E3 binding to human and canine GP IIb/IIIa is 27 nM and 16 nM, respectively and for multiquanatin it is 3 nM and 63 nM, respectively. Our results indicate that both p1 AIs inhibit platelet aggregation by binding with high affinity to GP IIb/IIIa. Record Date Created: 19940605 Record Date Completed: 19940606

2/7/79 (Item 79 from file: 155) DIALOG(R)File 155:MEDLINE(R) (c) format only 2004 The Dialog Corp. All rts. reserv.  
08484100 MI : 2320569

Platelet glycoprotein IIb-IIIa protein antagonists from snake venoms: evidence for a family of platelet-aggregation inhibitors.  
Dennis M S; Henze W J; Pitti R M; Lipari M T; Napier M A; Deisher T A; Bunting S; Lazarus R A  
Department of Biomedical Chemistry, Genentech, Inc., South San Francisco, CA 94080.

Proceedings of the National Academy of Sciences of the United States of America (UNITED STATES) Apr 1990; 87 (7): p2471-5. ISSN 0027-8424 Journal Code: 7505876 Document type: Journal Article Languages: ENGLISH Main Citation Owner: NLM Record type: Completed

The purification, complete amino acid sequence, and biological activity are described for several homologous snake venom proteins that are platelet glycoprotein (GP) IIb-IIIa antagonists and potent inhibitors of platelet aggregation. The primary structure of kistirin (from Agkistrodon rhodostoma), bilan (from Bitis arietans), three isoforms of trigramin (from Trimeresurus gramineus and an isoform of echistatin (from Echis carinatus) were determined by automated sequence analysis and fast atom bombardment mass spectrometry analysis. Each of the protein in this family, which range from 47 to 83 residues, contains an Arg-Gly-Asp amino acid sequence found in protein ligands that binds to GP IIb-IIIa, a high (17 +/- 1%) cysteine content conserved in the primary sequence, and a homologous N-terminal region absent only in the echistatin isoforms. Each protein directly inhibits the interaction of purified platelet GP IIb-IIIa to immobilized fibrinogen about 100 times more effectively than does the pentapeptide Gly-Arg-Gly-Asp-Ser. IC50 values range from 1.1 to 3.0 nM. The IC50 value for the inhibition of platelet aggregation, using human platelet-rich plasma stimulated with ADP, ranges from 110 to 550 nM for the various proteins, about 1000-fold more potent than Gly-Arg-Gly-Asp-Ser. Kistirin binds reversibly to both resting and ADP-activated human platelets with high affinity (Kd = 10.8 nM and 1.7 nM, respectively) and to purified GP IIb-IIIa with a lower affinity (Kd = approximately 100 nM). Finally, kistirin injected at mg/kg into rabbits reversibly inhibits platelet aggregation ex vivo over 30 min without induction of thrombocytopenia. We propose that these proteins are members of a general class of proteins found in the venom of pit vipers that inhibit platelet aggregation antagonism of the GP IIb-IIIa-fibrinogen interaction and as such serve as potential antithrombotic agents. Record Date Created: 19900504 Record Date Completed: 19900504

2/7/105 (Item 10 from file: 5) DIALOG(R)File 5:Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv.  
0011974615 BIOSIS NO.: 199900234275

Recurrent and persistent coagulopathy following pit viper envenomation  
AUTHOR: Boyer Leslie V (Reprint); Seifert Steven A; Clark Richard F; McNally Jude T; Williams Sarayn R; Nordt Sean P; Walter Frank G; Dart Richard C

AUTHOR ADDRESS: Department of Pediatrics, University of Arizona Health Sciences Center, Tucson, AZ, USA\*\*\*USA  
JOURNAL: Archives of Internal Medicine 159 (7): p706-710 April 12, 1999 1999

MEDIUM: print ISSN: 0003-9926 DOCUMENT TYPE: Article RECORD TYPE: Abstract LANGUAGE: English  
ABSTRACT: Background: Coagulation abnormalities following crotaline (pit viper) snakebite have traditionally been considered short-lived, but laboratory studies have rarely been reported beyond the first few days of treatment for envenomation. During a course of an antivenom clinical trial, we observed coagulation defects as late as 2 weeks following envenomation. Objectives: document and characterize the recurrence or persistence of coagulopathy among patients envenomed by pit vipers and treated with a Fab antivenom. Methods: Patients with moderate pit viper envenomation were enrolled in a multicenter, prospective clinical trial. A Fab-based antivenom preparation, antivenom polyvalent crotalid (ovine) Fab, was administered in all cases. Platelet coagulogram level, presence of fibrin split products, prothrombin time, and partial thromboplastin time were determined before treatment and at standard intervals during the following 2 weeks. Results: Of 38 patients completing the study, 20 (53%) had recurrent, persistent, or late coagulopathy 2 to 14 days after envenomation. Thrombocytopenia occurred in patients with prior thrombocytopenia; hypofibrinogenemia occurred only in those with prior hypofibrinogenemia or positive fibrin split products. No patient experienced significant spontaneous bleeding. One patient with coagulopathy developed minor bleeding following minor surgery 12 days after envenomation. Conclusions: Prolonged or recurrent coagulopathy may occur after envenomation by No American pit vipers. Patients treated with Fab-based antivenom may benefit from periodic rather than single-bolus dosing. Patients with coagulopathy should undergo close monitoring during the first 2 weeks after snakebite.

2/7/109 (Item 14 from file: 5) DIALOG(R)File 5:Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv.  
0011862612 BIOSIS NO.: 199900122272

The treatment of acute renal failure following mamushi bite by hemofiltration and hemodiafiltration  
AUTHOR: Yamasaki Atsuyuki (Reprint)  
AUTHOR ADDRESS: Dep. Urol., Mitsugi Public Gen. Hosp., Mitsugi, Japan\*\* Japan  
JOURNAL: Nagasaki Igakkaï Zasshi 73 (3): p97-100 Sept., 1998 1998 MEDIUM: print ISSN: 0369-3228  
DOCUMENT TYPE: Article RECORD TYPE: Abstract LANGUAGE: Japanese

ABSTRACT: A case of the treatment of acute renal failure caused by rhabdomyolysis due to the venom poisoning by Agkistrodon Halys Blomhoffi (mamushi) is reported. The fatal rate of mamushi bite poisoning is rare. However, about 0.2% of the patients d Most of the fatal causes are acute renal failure, it is important to treat for renal failure. A 66-year-old man was admitted because acute renal failure due to mamushi bite. From his left arm, chest wall, to abdomen were swelling due to mamushi bite, these skin was changed to red wine color. Significant laboratory data was: white blood count (WBC) 16100/ml; platelet 12.9 X 104; blood urea nitrogen (BUN) 62mg/dl; serum creatinine 4.6mg/dl; glutamate oxaloacetate transaminase (GOT) 1270IU; glutamate pyruvate transaminase (GPT) 383IU; lactate dehydrogenase (LDH) 4460IU; creatine phosphokinase (CPK) 47400IU; serum myoglobin 7000ng/ml. Furthermore, general condition was not so good, he stood at oliguria and dyspnea. The patient presented rhabdomyolysis and acute renal failure, and underwent hemofiltration and hemodiafiltration. After treatment, he

recovered his renal function and had a good clinical course. Hemofiltration and hemodiafiltration are safe, it was considered that these treatments are useful to improve myoglobinuria.

2/7/110 (Item 15 from file: 5) DIALOG(R)File 5:Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv.  
0011710796 BIOSIS NO.: 199800505042

Analysis of the potent platelet glycoprotein IIb-IIIa antagonist from natural sources

AUTHOR: Kang In-Cheol; Kim Doc-Sik (Reprint)

AUTHOR ADDRESS: Dep. Biochemistry, Coll. Sci., Yonsei Univ., Seoul 120-749, South Korea\*\*South Korea  
JOURNAL: Journal of Biochemistry and Molecular Biology, 31 (5): p515-518, Sept. 30 1998 1998 MEDIUM: print  
ISSN: 1225-8687 DOCUMENT TYPE: Article RECORD TYPE: Abstract LANGUAGE: English  
ABSTRACT: Adhesive interaction of the platelet glycoprotein IIb-IIIa (GP IIb-IIIa) with a plasma protein, such as fibrinogen, plays

an important role in thrombosis and hemostasis. The specific sequence Arg-Gly-Asp (RGD) is critical for the binding of fibrinogen to platelet. To examine and characterize the GP IIb-IIIa antagonist from natural sources, we have developed a simple enzyme-linked immunosorbent assay (ELISA) system. The GP IIb-IIIa complex was purified to homogeneity from platelet lysates by the combination of two affinity chromatographic methods using the synthetic RGD peptide (GRGDSPK)-immobilized Sepharose and wheat germ lectin-Sepharose. The synthetic peptide GRGDSPK inhibits GP IIb-IIIa binding to immobilized fibrinogen with an IC50 of 1.5 µM. Venoms of three different snake species and a Korean scorpion extract have strong antagonistic activities for the binding of human fibrinogen to the platelet GP IIb-IIIa complex. The IC50 values of the snake venoms and scorpions were in the range of 5.5 µg to 60 µg. These results provide meaningful information for developing antiplatelet agents.

2/7/112 (Item 17 from file: 5) DIALOG(R)File 5:Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv.

0010651733 BIOSIS NO.: 199799285793

Snake venom proteins modulating the interaction between von Willebrand factor and platelet glycoprotein Ib

AUTHOR: Fujimura Yoshihiro (Reprint); Kawasaki Tomihisa; Tilani Koli

AUTHOR ADDRESS: Dep. Blood Transfusion, Nara Med. Univ., Kashihara, Nara 634, Japan\*\*Japan

JOURNAL: Thrombosis and Haemostasis, 76 (5): p633-639, 1996 1996 ISSN: 0340-6245

DOCUMENT TYPE: Article; Literature Review RECORD TYPE: Citation LANGUAGE: English

2/7/127 (Item 32 from file: 5) DIALOG(R)File 5:Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv.

0007814019 BIOSIS NO.: 199192059790

IDENTIFICATION OF 50 KDA SNAKE VENOM PROTEINS WHICH SPECIFICALLY INHIBIT PLATELET ADHESION TO COLLAGEN

AUTHOR: SMITH J B (Reprint); DANGELMAIER C; SELAK M

AUTHOR ADDRESS: DEP PHARMACOLOGY, TEMPLE UNIVERSITY MEDICAL SCHOOL, 3400 NORTH BROAD STREET, PHILADELPHIA, PA 19140, USA\*\*USA

JOURNAL: Fests Letters, 283 (2-3): p307-310, 1991 ISSN: 0014-5793 DOCUMENT TYPE: Article RECORD TYPE: Abstract  
LANGUAGE: ENGLISH

ABSTRACT: Of 32 snake venoms tested, the crude venoms of four (Bothrops atrox, B. jararaca, Agkistrodon halys blomhoffi, and Crotalus basiliscus) showed strong inhibitor activity in an assay of platelet adhesion to collagen. Active 50 kDa proteins were purified to homogeneity from each venom and found to be rich in cysteine on amino acid analysis. A monoclonal antibody raised against the purified B. atrox protein crossreacted strongly with the 50 kDa proteins from B. jararaca and A. halys blomhoffi and weakly with the protein from C. basiliscus, indicating that all four proteins possess a similar epitope. The proteins inhibited platelet aggregation induced by collagen but not by other agonist.

2/7/138 (Item 43 from file: 5) DIALOG(R)File 5:Biosis Previews(R) (c) 2004 BIOSIS. All rts. reserv.

0003050734 BIOSIS NO.: 198070082221

STUDIES ON COAGULATION FIBRINOLYTIC ACTIVITY OF SNAKE VENOMS

AUTHOR: SAKURAGAWA N (Reprint); TAKAHASHI K; SHIBATA A; OHNISHI Y

AUTHOR ADDRESS: CLIN CENT LAB TOYAMA MED PHARM UNIV, TOYAMA, JPN\*\*JAPAN

JOURNAL: Snake, 11 (2): p176-183, 1979 ISSN: 0386-3425 DOCUMENT TYPE: Article RECORD TYPE: Abstract  
LANGUAGE: JAPANESE

ABSTRACT: Viper russelli siamensis, Trimeresurus okinavensis, Naja naja kaouthia and Agkistrodon halys blomhoffi activated prothrombin via prothrombin-complex, but no thrombin-like activity was found in these snake venoms. T. okinavensis and Echis carinatus venom showed the strongest activities toward kallikrein, factor Xa, thrombin and plasmin. Fibrinolytic activity was found in the T. okinavensis, A. halys blomhoffi and T. flavoviridis. Platelet aggregation activity using [human] platelet rich plasma (PRP) was found in T. okinavensis (0.001 mg/ml), T. flavoviridis (0.01 mg/ml), A. halys blomhoffi (1 mg/ml) and E. carinatus venom (0.005 mg/ml). For coagulation-fibrinolytic inhibitors (antifibrin III, alpha 1-antitrypsin and alpha 2-macroglobulin) and complements (C3 and C4), immunological assay methods were used. V. russelli siamensis, N. naja kaouthia, A. halys blomhoffi, T. flavoviridis and T. okinavensis venoms (0.01 mg/ml) strongly reduced alpha 2-macroglobulin and C3 and moderately reduced alpha 1-antitrypsin and C4. After snakebite coagulation-fibrinolysis is activated and platelet aggregation also occurs. These phenomena will induce disseminated intravascular coagulation. The characteristics of the snake venoms may be useful for coagulation-fibrinolysis investigation as an assay method.

8/6/1 (Item 1 from file: 155) 13354579 PMID: 9028474

Effects of ammonia and nitrate concentration on hematologic and serum biochemical profiles of hybrid striped bass (Morone chrysops x Morone saxatilis ). Feb 1997

8/6/2 (Item 2 from file: 155) 13354578 PMID: 9028473

Effects of temperature on hematologic and serum biochemical profiles of hybrid striped bass (Morone chrysops x Morone saxatilis ). Feb 1997  
Snake venom disintegrin, saxatitin, inhibits platelet aggregation, human umbilical vein endothelial cell proliferation, and smooth muscle cell migration, Jan 1 2002

8/6/3 (Item 3 from file: 155) 11691720 PMID: 11854711

The Novel Angiogenic Inhibitor Saxatin Reduce Ocular Neovascularization Elicited by bFGF and Hyperoxia. 2002

8/6/4 (Item 1 from file: 5) 0014206479 BIOSIS NO.: 200300155198

8/6/5 (Item 2 from file: 5) 0013636201 BIOSIS NO.: 200200229712  
Snake venom disintegrin, saxatitin, inhibits platelet aggregation, human umbilical vein endothelial cell proliferation, and smooth muscle cell migration 2002

8/6/6 (Item 1 from file: 154) 13354579 PMID: 9028474

Effects of ammonia and nitrate concentration on hematologic and serum biochemical profiles of hybrid striped bass (Morone chrysops x Morone saxatilis ). Feb 1997

8/6/7 (Item 2 from file: 154) 13354578 PMID: 9028473

Effects of temperature on hematologic and serum biochemical profiles of hybrid striped bass (Morone chrysops x Morone saxatilis ). Feb 1997  
Snake venom disintegrin, saxatitin, inhibits platelet aggregation, human umbilical vein endothelial cell proliferation, and smooth muscle cell migration, Jan 1 2002

8/6/8 (Item 3 from file: 154) 11691720 PMID: 11864711

10/6/140 (Item 1 from file: 34) 13211768 Genuine Article#: 859VE Number of References: 42  
Title: Comparative proteomics and subtyping of venom phospholipases A(2) and disintegrins of Protobothrops pit vipers (ABSTRACT AVAILABLE) Publication date: 20041001

10/6/141 (Item 2 from file: 34) 13061303 Genuine Article#: 845KB Number of References: 61

Title: Crystal structure of schistatin, a disintegrin homodimer from saw-scaled viper (Echis carinatus) at 2.5 angstrom resolution ( ABSTRACT AVAILABLE) Publication date: 20040813

10/6/142 (Item 3 from file: 34) 12718741 Genuine Article#: 813MU Number of References: 85

Title: Intravenous liposomal delivery of the snake venom disintegrin controstatin limits breast cancer progression (ABSTRACT AVAILABLE) Publication date: 20040400

10/6/143 (Item 4 from file: 34) 12620512 Genuine Article#: 806BX Number of References: 31

Title: Puroreotin: a novel di-dimetic C-type lectin-like protein from Trimeresurus purpureomaculatus venom is stabilized by noncovalent interactions (ABSTRACT AVAILABLE) Publication date: 20040401

10/6/144 (Item 5 from file: 34) 12385533 Genuine Article#: 762DH Number of References: 41

Title: Venom phospholipases A(2) of bamboo viper (Trimeresurus stejegeri): molecular characterization, geographic variations and evidence o multiple ancestries (ABSTRACT AVAILABLE) Publication date: 20040101

10/6/145 (Item 6 from file: 34) 12325263 Genuine Article#: 755JF Number of References: 44

Title: Structure of an acidic phospholipase A(2) from Indian saw-scaled viper (Echis carinatus) at 2.6 angstrom resolution reveals a novel intermolecular interaction (ABSTRACT AVAILABLE) Publication date: 20040100

10/6/146 (Item 7 from file: 34) 12278127 Genuine Article#: 748WM Number of References: 19

Title: Purification, partial characterization and crystallization of acuelitin, a protein containing both disintegrin-like and cysteine-rich domains rele by auto-proteolysis is of a P-II-type metalloproteinase Aah-IV from Agkistrodon acutus venom (ABSTRACT AVAILABLE) Publication date: 20031

10/6/147 (Item 8 from file: 34) 12079285 Genuine Article#: 726AP Number of References: 38

Title: Crystal structure of imnestatin, a disintegrin containing a cell adhesion recognition motif RGD (ABSTRACT AVAILABLE) Publication date: 20031003

10/6/148 (Item 9 from file: 34) 12058259 Genuine Article#: 723GW Number of References: 54

Title: Amino acid sequence and crystal structure of BaP1, a metalloproteinase from Bothrops asper snake venom that exerts multiple tissue-damaging activities (ABSTRACT AVAILABLE) Publication date: 20031000

10/6/149 (Item 10 from file: 34) 11886732 Genuine Article#: 706VG Number of References: 46

Title: Myotoxicity induced by an acidic Asp-49 phospholipase A(2) isolated from Lachesis muta snake venom. Comparison with lysophosphatidylcholine (ABSTRACT AVAILABLE) Publication date: 20031000

10/6/150 (Item 11 from file: 34) 11484071 Genuine Article#: 658BN Number of References: 37

Title: Geographic variations, cloning, and functional analyses of the venom acidic phospholipases A(2) of Crotalus viridis viridis (ABSTRACT AVAILA LE) Publication date: 20030315



Title: Expression and biochemical characterization of acidic phospholipase A(2) from Agkistrodon acutus (ABSTRACT AVAILABLE) Publication date: 19990900

10/6/170 (Item 31 from file: 34) 07952955 Genuine Article#: 228NM Number of References: 62  
Title: Sea snake Hydrophis cyanocinctus venom. I. Purification, characterization and N-terminal sequence of two phospholipases A(2) ( ABSTRACT AVAILABLE) Publication date: 19991100

10/6/171 (Item 32 from file: 34) 07852880 Genuine Article#: 215KF Number of References: 92  
Title: Receptors for a growing family of secreted phospholipases A(2) ( ABSTRACT AVAILABLE) Publication date: 19990400

10/6/172 (Item 33 from file: 34) 07565000 Genuine Article#: 182RQ Number of References: 22  
Title: Cloning, expression, and characterization of a cDNA encoding snake venom metalloprotease (ABSTRACT AVAILABLE) Publication date: 19990300

10/6/173 (Item 34 from file: 34) 07269008 Genuine Article#: 143YH Number of References: 93  
Title: Haemorrhagic factors from snake venoms II. Structures of haemorrhagic factors and types and mechanisms of haemorrhage (ABSTRACT AVAILABLE) Publication date: 19980000

10/6/174 (Item 35 from file: 34) 07229442 Genuine Article#: 139BC Number of References: 302  
Title: Snake venoms and the hemostatic system Publication date: 19981200

10/6/175 (Item 36 from file: 34) 07103873 Genuine Article#: 133NG Number of References: 44  
Title: Acoulin, a new disintegrin, inhibits angiogenesis in vitro and in vivo by acting as integrin alpha(v)beta(3) antagonist and inducing apoptosis (ABSTRACT AVAILABLE) Publication date: 19981101

10/6/176 (Item 37 from file: 34) 07093508 Genuine Article#: 123NF Number of References: 60  
Title: At the interface: Crystal structures of phospholipases A(2) ( ABSTRACT AVAILABLE) Publication date: 19981100

10/6/177 (Item 38 from file: 34) 07012353 Genuine Article#: 114TG Number of References: 102  
Title: Haemorrhagic factors from snake venoms. I. Properties of haemorrhagic factors and antihaemorrhagic factors (ABSTRACT AVAILABLE) Publication date: 19980000

10/6/178 (Item 39 from file: 34) 06872210 Genuine Article#: ZY317 Number of References: 29  
Title: Biochemical characterization of lebetase, a direct-acting fibrinolytic enzyme from Vipera labellina snake venom (ABSTRACT AVAILABLE) Publication date: 19980401

10/6/179 (Item 40 from file: 34) 06283827 Genuine Article#: YG312 Number of References: 29  
Title: Analysis of a cDNA sequence encoding a novel member of the snake venom metalloproteinase: disintegrin-like, cysteine-rich (MD-C) prot family from Agkistrodon contortrix latinctus (ABSTRACT AVAILABLE) Publication date: 19971017

10/6/180 (Item 41 from file: 34) 06244724 Genuine Article#: YE170 Number of References: 48  
Title: Snake venoms (ABSTRACT AVAILABLE) Publication date: 19970000

10/6/181 (Item 42 from file: 34) 06054390 Genuine Article#: XE898 Number of References: 0  
Title: Salmosin, a potent inhibitor of platelet aggregation from the venom of the viper, Agkistrodon halys brevicaudus (Korean salmosa) - Purification and molecular cloning of salmosin Publication date: 19970600

10/6/182 (Item 43 from file: 34) 06052303 Genuine Article#: XE898 Number of References: 0  
Title: Isolation and cloning of manushigin, a novel platelet glycoprotein Ib binding protein from Agkistrodon halys bromhoffii Publication date: 19970500

10/6/183 (Item 44 from file: 34) 06023000 Genuine Article#: XQ002 Number of References: 35  
Title: Chimeric fibrolase: Covalent attachment of an RGD-like peptide to create a potentially more effective thrombolytic agent (ABSTRACT AVAILABLE) Publication date: 19970801

10/6/184 (Item 45 from file: 34) 05386344 Genuine Article#: VW098 Number of References: 21  
Title: MOLECULAR-CLONING AND DEDUCED PRIMARY STRUCTURES OF ACIDIC AND BASIC PHOSPHOLIPASES A(2) FROM THE VENOM OF DEINAGKISTRODON ACUTUS (Abstract Available)

10/6/185 (Item 46 from file: 34) 05355524 Genuine Article#: VT077 Number of References: 52  
Title: ASP-49 IS NOT AN ABSOLUTE PREREQUISITE FOR THE ENZYMATIC ACTIVITY OF LOW-M(R) PHOSPHOLIPASES A(2) - PURIFICATION, CHARACTERIZATION AND COMPUTER MODELING OF AN ENZYMATICALLY ACTIVE SER-49 PHOSPHOLIPASE-A(2), ECARPHOLINS, FROM THE VENOM OF ECHIS-CARINATUS SOCHUREKI (SAW-SCALED VIPER) (Abstract Available)

10/6/186 (Item 47 from file: 34) 04652174 Genuine Article#: TZ315 Number of References: 53  
Title: THE TOXINOLOGY OF CALLOSELASMARHODOSTOMA (MALAYAN PIT VIPER) VENOM (Abstract Available)

10/6/187 (Item 48 from file: 34) 04537902 Genuine Article#: TR573 Number of References: 36  
Title: CRYSTALL-STRUCTURE OF AN ACIDIC PHOSPHOLIPASE A(2) FROM THE VENOM OF AGKISTRODON HALYS PALLAS AT 2.0-ANGSTROM RESOLUTION (Abstract Available)

10/6/188 (Item 49 from file: 34) 04495592 Genuine Article#: TG686 Number of References: 129

10/6/151 (Item 12 from file: 34) 11481525 Genuine Article#: 660CE Number of References: 31  
Title: Purification, crystallization and preliminary crystallographic analysis of AHP IX-bp, a zinc iron and pH-dependent coagulation factor IX binding protein from Agkistrodon halys Pallas venom (ABSTRACT AVAILABLE) Publication date: 20030400

10/6/152 (Item 13 from file: 34) 11179070 Genuine Article#: 619GV Number of References: 14  
Title: Purification, crystallization and preliminary X-ray analysis of the disintegrin conforctostalin from Agkistrodon contortrix conforctrix snake venom (ABSTRACT AVAILABLE) Publication date: 20021200

10/6/153 (Item 14 from file: 34) 10535360 Genuine Article#: 538WZ Number of References: 16  
Title: Lebecetin, a C-beitin protein from the venom of Macrovipera lebetina that inhibits platelet aggregation and adhesion of cancerous cells ( ABSTRACT AVAILABLE) Publication date: 20010500

10/6/154 (Item 15 from file: 34) 09490510 Genuine Article#: 413WG Number of References: 36  
Title: Differential expression and geographic variation of the venom phospholipases A(2) of Calloselasma rhodostoma and Trimeresurus mucrosquamatus (ABSTRACT AVAILABLE) Publication date: 20010315

10/6/155 (Item 16 from file: 34) 09464582 Genuine Article#: 409DP Number of References: 30  
Title: Identification of key residues responsible for enzymatic and platelet -aggregation-inhibiting activities of acidic phospholipase A(2)/S from Agkistrodon halys Pallas (ABSTRACT AVAILABLE) Publication date: 20010200

10/6/156 (Item 17 from file: 34) 09185101 Genuine Article#: 376KK Number of References: 40  
Title: Phospholipases A(2) from Calloselasma rhodostoma venom gland - Cloning and sequencing of 10 of the cDNAs, three-dimensional modelling and chemical modification of the major isozyme (ABSTRACT AVAILABLE) Publication date: 20001100

10/6/157 (Item 18 from file: 34) 09184994 Genuine Article#: 376JC Number of References: 20  
Title: Purification and characterization of a platelet agglutinating inhibiting protein (Agkiscoutabin) from Agkistrodon acutus venom ( ABSTRACT AVAILABLE) Publication date: 20001100

10/6/158 (Item 19 from file: 34) 09028858 Genuine Article#: 358KM Number of References: 59  
Title: Structural and functional characterization of newwiedase, a nonhemorrhagic fibrin(ogen)olytic metalloprotease from Bothrops newwiedi snake venom (ABSTRACT AVAILABLE) Publication date: 20000915

10/6/159 (Item 20 from file: 34) 08941266 Genuine Article#: 347EV Number of References: 44  
Title: Action of metalloproteinases mutalysin I and II on several-components of the hemostatic and fibrinolytic systems ( ABSTRACT AVAILABLE) Publication date: 20000815

10/6/160 (Item 21 from file: 34) 08852892 Genuine Article#: 336TQ Number of References: 21  
Title: Purification, crystal growth and preliminary X-ray analysis of a phospholipase A(2) from venom of Agkistrodon acutus (ABSTRACT AVAILABLE) Publication date: 20000700

10/6/161 (Item 22 from file: 34) 08844026 Genuine Article#: 335AM Number of References: 51  
Title: Confortostatin, a dimeric disintegrin from Agkistrodon contortrix, inhibits breast cancer progression (ABSTRACT AVAILABLE) Publication date: 20000600

10/6/162 (Item 23 from file: 34) 08785882 Genuine Article#: 328PL Number of References: 18  
Title: Expression and biochemical characterization of a basic phospholipase A(2) from Agkistrodon acutus. (ABSTRACT AVAILABLE) Publication date: 20000600

10/6/163 (Item 24 from file: 34) 08757527 Genuine Article#: 327FY Number of References: 52  
Title: Characterization, crystallization and preliminary X-ray diffraction analysis of acutohaemolysin, a haemolytic toxin from Agkistrodon acutus venom (ABSTRACT AVAILABLE) Publication date: 20000700

10/6/164 (Item 25 from file: 34) 08635862 Genuine Article#: 310AF Number of References: 22  
Title: A comparative study of the function of phospholipases A(2) from Agkistrodon acutus (ABSTRACT AVAILABLE) Publication date: 20000400

10/6/165 (Item 26 from file: 34) 08550524 Genuine Article#: 299NZ Number of References: 39  
Title: Purification, cloning and sequence analyses for pro-metalloprotease-disintegrin variants from Deinagkistrodon acutus venom and subclassification of the small venom metalloproteases ( ABSTRACT AVAILABLE) Publication date: 20000300

10/6/166 (Item 27 from file: 34) 08530992 Genuine Article#: BP75P Number of References: 38  
Title: Structures and pharmacological activities of phospholipase A(2)s from Agkistrodon halys Pallas (ABSTRACT AVAILABLE) Publication date: 20000000

10/6/167 (Item 28 from file: 34) 08174951 Genuine Article#: 254LE Number of References: 69  
Title: Modulation of phospholipase A(2) activity generated by molecular evolution (ABSTRACT AVAILABLE) Publication date: 19991030

10/6/168 (Item 29 from file: 34) 08023351 Genuine Article#: 237UF Number of References: 16  
Title: Molecular cloning and expression of the cDNA for disintegrin from Agkistrodon acutus (ABSTRACT AVAILABLE) Publication date: 19990900

10/6/169 (Item 30 from file: 34) 08023354 Genuine Article#: 237UF Number of References: 21

Title: PHOSPHOLIPASE A(2), MYOTOXINS FROM BOTHROPS SNAKE-VENOMS (Abstract Available)

10/6/189 (Item 50 from file: 34) 04289335 Genuine Article# RT886 Number of References: 4

Title: MECHANISM OF INHIBITION OF PLATELET -AGGREGATION BY ACIDIC PHOSPHOLIPASE A(2) FROM AGKISTRODON HALYS PALLAS (Abstract Available )

10/6/190 (Item 51 from file: 34) 04140757 Genuine Article# RH353 Number of References: 207

Title: INTERFACIAL ENZYMOLOGY OF GLYCEROLIPID HYDROLASES - LESSONS FROM SECRETED PHOSPHOLIPASES A(2) (Abstract Available)

10/6/191 (Item 52 from file: 34) 04127199 Genuine Article# RF880 Number of References: 21

Title: PURIFICATION AND CHARACTERIZATION OF PISCIVORASE-I AND PISCIVORASE-II, THE FIBRINOLYTIC ENZYMES FROM EASTERN COTTONMOUTH MOCCASIN VENOM ( AGKISTRODON -PISCIVORUS-PISCIVORUS) (Abstract Available)

10/6/192 (Item 53 from file: 34) 04103563 Genuine Article# RE545 Number of References: 52

Title: ZENHANCEMENT OF AGKISTRODON -PISCIVORUS-PISCIVORUS VENOM PHOSPHOLIPASE A(2) ACTIVITY TOWARD PHOSPHATIDYLCHOLINE VESICLES BY LYSOLEGTHIN AND PALMITIC ACID - STUDIES WITH FLUORESCENT-PROBES OF MEMBRANE-STRUCTURE (Abstract Available)

10/6/193 (Item 54 from file: 34) 04103106 Genuine Article# RE632 Number of References: 43

Title: MOLECULAR-CLONING AND SEQUENCE-ANALYSIS OF CDNAS FOR METALLOPROTEINASES FROM BROAD-BANDED COPPERHEAD AGKISTRODON CONTORTIX LATICINCTUS (Abstract Available)

10/6/194 (Item 55 from file: 34) 04066346 Genuine Article# RB205 Number of References: 41

Title: STRUCTURE OF A CALCIUM-INDEPENDENT PHOSPHOLIPASE-LIKE MYOTOXIC PROTEIN FROM BOTHROPS-ASPER VENOM (Abstract Available)

10/6/195 (Item 56 from file: 34) 04026331 Genuine Article# QZ913 Number of References: 39

Title: CHEMICAL MODIFICATION AND INACTIVATION OF PHOSPHOLIPASES A(2) BY A MANDALIDE ANALOG (Abstract Available)

10/6/196 (Item 57 from file: 34) 03923517 Genuine Article# QT032 Number of References: 45

Title: AUTOCATALYTIC ACYLATION OF PHOSPHOLIPASE-LIKE MYOTOXINS (Abstract Available)

10/6/197 (Item 58 from file: 34) 03878460 Genuine Article# QN338 Number of References: 42

Title: BIOCHEMICAL-CHARACTERIZATION OF BASILASE, A FIBRINOLYTIC ENZYME FROM CROTALUS-BASILISCUUS-BASILISCUUS (Abstract Available)

10/6/198 (Item 59 from file: 34) 03752176 Genuine Article# QC586 Number of References: 27

Title: PURIFICATION AND CHARACTERIZATION OF A NONHEMORRHAGIC METALLOPROTEASE FROM AGKISTRODON HALYS BREVICAUDUS VENOM (Abstract Available)

10/6/199 (Item 60 from file: 34) 03735355 Genuine Article# QB599 Number of References: 26

Title: BINDING MODE OF PHOSPHOLIPASE A(2) WITH A NEW-TYPE OF PHOSPHOLIPID ANALOG HAVING AN OXAZOLIDINONE RING (Abstract Available)

10/6/200 (Item 61 from file: 34) 03622106 Genuine Article# PR286 Number of References: 46

Title: THROMBOLYTIC EFFECTS OF RECOMBINANT FIBROLASE OR APSAC IN A CANINE MODEL OF CAROTID-ARTERY THROMBOSIS (Abstract Available)

10/6/201 (Item 62 from file: 34) 03403879 Genuine Article# PF791 Number of References: 36

Title: CONTORTOSTATIN, A SNAKE-VENOMDISINTEGRIN, INHIBITS BETA-1 INTEGRIN-MEDIATED HUMAN METASTATIC MELANOMA CELL-ADHESION AND BLOCKS EXPERIMENTAL METASTASIS (Abstract Available)

10/6/202 (Item 63 from file: 34) 03361945 Genuine Article# NZ786 Number of References: 179

Title: HEMORRHAGIC METALLOPROTEINASES FROM SNAKE-VENOMS (Abstract Available)

10/6/203 (Item 64 from file: 34) 03251150 Genuine Article# NQ350 Number of References: 120

Title: SNAKE-VENOMS AFFECTING THE HEMOSTATIC MECHANISM - A CONSIDERATION OF THEIR MECHANISMS, PRACTICAL APPLICATIONS AND BIOLOGICAL SIGNIFICANCE ( Abstract Available)

10/6/204 (Item 65 from file: 34) 03099351 Genuine Article# NF042 Number of References: 70

Title: INHIBITION OF HUMAN SECRETORY CLASS-II PHOSPHOLIPASE A(2) BY HEPARIN (Abstract Available)

10/6/205 (Item 66 from file: 34) 02955096 Genuine Article# MR685 Number of References: 25

Title: PURIFICATION AND CHARACTERIZATION OF PLATELET -AGGREGATION INHIBITORS FROM SNAPE VENOMS (Abstract Available)

10/6/206 (Item 67 from file: 34) 02813127 Genuine Article# MF533 Number of References: 6

Title: EFFECT OF LEAVES OF GINKGO-BLOBA ON HAIR REGROWTH IN C3H STRAIN MICE (Abstract Available)

10/6/207 (Item 68 from file: 34) 02716642 Genuine Article# LY517 Number of References: 121

Title: ACTION OF SNAKE-VENOM COMPONENTS ON THE HEMOSTATIC SYSTEM (Abstract Available)

10/6/208 (Item 69 from file: 34) 02701782 Genuine Article# LX335 Number of References: 25

Title: MOLECULAR-CLONING AND SEQUENCE-ANALYSIS OF THE CDNA FOR ANCRD, A THROMBIN-LIKE ENZYME FROM THE VENO OF CALLOSELASMA-RHOODOSTOMA ( Abstract Available)

10/6/209 (Item 70 from file: 34) 02615432 Genuine Article# LP646 Number of References: 63

Title: PLATELET , ANITHTHROMBIN, AND FIBRINOLYTIC-ACTIVITIES IN TAURINE-DEFICIENT AND TAURINE-REPLETE CATS (Abstract Available)

10/6/210 (Item 71 from file: 34) 02404219 Genuine Article# KY879 Number of References: 36

Title: BASIC PROTEINASES FROM BOTHROPS-MOOJENI-(CAISSACA) VENOM .1. ISOLATION AND ACTIVITY OF 2 SERINE PROTEINA MSP-1 AND MSP-2, ON SYNTHETIC SUBSTRATES AND ON PLATELET -AGGREGATION (Abstract Available )

10/6/211 (Item 72 from file: 34) 02301475 Genuine Article# KR509 Number of References: 34

Title: ACCIDENTAL ENVENOMING BY A GABOON VIPER (BITIS-GABONICA) - THE HEMOSTATIC DISTURBANCES OBSERVED AND INVESTIGATION OF INVITRO HEMOSTATIC PROPERTIES OF WHOLE VENOM (Abstract Available)

10/6/212 (Item 73 from file: 34) 02250099 Genuine Article# KN544 Number of References: 88

Title: EFFECT OF SOME ANIMAL VENOMS AND SECRETIONS ON THE HEMOSTATIC MECHANISM (Abstract Available)

10/6/213 (Item 74 from file: 34) 02100097 Genuine Article# KB012 Number of References: 237

Title: MEMBRANE-STRUCTURE, TOXINS AND PHOSPHOLIPASE-A2 ACTIVITY (Abstract Available)

10/6/214 (Item 75 from file: 34) 02094892 Genuine Article# KA580 Number of References: 39

Title: REVISION OF A GROUP-II PHOSPHOLIPASE-A(2) FROM THE VENOM OF AGKISTRODON -PISCIVORUS-PISCIVORUS IN ESCHERICHIA-COLI - RECOVERY AND RENATURATION FROM BACTERIAL INCLUSION-BODIES

10/6/215 (Item 76 from file: 34) 02018678 Genuine Article# JN011 Number of References: 36

Title: CALCIUM AND MAGNESIUM DEPENDENCE OF PHOSPHOLIPASE-A2-CATALYZED HYDROLYSIS OF PHOSPHATIDYLCHOLINE SMALL UNILAMELLAR VESICLES (Abstract Available)

10/6/216 (Item 77 from file: 34) 01944760 Genuine Article# JN565 Number of References: 0

Title: PRELIMINARY CRYSTALLOGRAPHIC STUDY OF THE PLATELET -AGGREGATION INHIBITOR FROM THE VENOM OF AGKISTRODON -HALYS-PALLAS

10/6/217 (Item 78 from file: 34) 01939552 Genuine Article# JN464 Number of References: 201

Title: CHARACTERIZATION OF SNAKE-VENOM COMPONENTS ACTING ON BLOOD-COAGULATION AND PLATELET -FUNCTION (Abstract Available)

10/6/218 (Item 79 from file: 34) 01876154 Genuine Article# JH548 Number of References: 39

Title: REVERSIBILITY OF THE ACTIVATION OF SOLUBLE PHOSPHOLIPASE-A2 ON LIPID BILAYERS - IMPLICATIONS FOR THE ACTIVATION MECHANISM (Abstract Available)

10/6/219 (Item 80 from file: 34) 01815168 Genuine Article# JB342 Number of References: 57

Title: IMMUNOCHEMICAL ANALYSIS OF A SNAKE-VENOM PHOSPHOLIPASE-A2 NEUROTOXIN, WITH MONOCLONAL-ANTIBODIES (Abstract Available)

10/6/220 (Item 81 from file: 34) 01736523 Genuine Article# HX169 Number of References: 32

Title: MOLECULAR DETAILS OF THE ACTIVATION OF SOLUBLE PHOSPHOLIPASE-A(2) ON LIPID BILAYERS - COMPARISON OF COMPUTER-SIMULATIONS WITH EXPERIMENTAL RESULTS (Abstract Available)

10/6/221 (Item 82 from file: 34) 01681418 Genuine Article# HR719 Number of References: 127

Title: STRUCTURAL DOMAINS IN VENOM PROTEINS - EVIDENCE THAT METALLOPROTEINASES AND NONENZYMATIC PLATELET -AGGREGATION INHIBITORS ( DISINTEGRINS) FROM SNAKE-VENOMS ARE DERIVED BY PROTEOLYSIS FROM A COMMON PRECURSOR (Abstract Available)

10/6/222 (Item 83 from file: 34) 01651867 Genuine Article# HP168 Number of References: 15

Title: STRUCTURE OF ACIDIC PHOSPHOLIPASE-A2 FOR THE VENOM OF AGKISTRODON -HALYS-BLOMHOFFI AT 2.8 A RESOLUTION

10/6/223 (Item 84 from file: 34) 01487020 Genuine Article# HC607 Number of References: 44

Title: KINETICS OF THE HYDROLYSIS OF MICELLAR SUBSTRATES CATALYZED BY SNAKE-VENOM PHOSPHOLIPASES-A2 (Abstract Available)

10/6/224 (Item 85 from file: 34) 01223003 Genuine Article# GF445 Number of References: 39

Title: PLATELET -DERIVED MICROPARTICLES EXPRESS HIGH-AFFINITY RECEPTORS FOR FACTOR-VIII (Abstract Available)

10/6/225 (Item 86 from file: 34) 01154827 Genuine Article# GA940 Number of References: 25

Title: HIGHLY SEQUENTIAL BINDING OF PROTEIN-KINASE-C AND RELATED PROTEINS TO MEMBRANES (Abstract Available)

10/6/226 (Item 87 from file: 34) 01154826 Genuine Article# GA940 Number of References: 43

Title: EXTENSIVE SEGREGATION OF ACIDIC PHOSPHOLIPIDS IN MEMBRANES INDUCED BY PROTEIN-KINASE-C AND RELATED PROTEINS (Abstract Available)

- clinically as anticoagulants, and other venom proteins are being used in preclinical research to investigate their possible therapeutic potential.
- Haemostatically active components are distributed widely in the venom of many different snake species. In no case are all the components described below found in any single venom. Venom components can be grouped into several categories depending on their haemostatic effect. The following haemostatically active components are discussed in this chapter: enzymes that cause fibrinogen coagulation; enzymes that degrade fibrin(ogen); plasminogen activator; prothrombin activators; factor V activator; factor X activator; anticoagulant activities; enzymes with haemorrhagic activity; platelet aggregation inducers; and platelet aggregation inhibitors.
- 10/67227 (Item 88 from file: 34) 01099535 Genuine Article#: FW548 Number of References: 40  
Title: PURIFICATION AND CHARACTERIZATION OF A FIBRINOGENASE FROM VIPERA-LEBETINA (DESERT ADDER) VENOM (Abstract Available)
- 10/67228 (Item 89 from file: 34) 01073100 Genuine Article#: FU407 Number of References: 69  
Title: PEPTIDES THAT MIMIC THE PSEUDOSUBSTRATE REGION OF PROTEIN-KINASE-C BIND TO ACIDIC LIPIDS IN MEMBRANES (Abstract Available)
- 10/67229 (Item 90 from file: 34) 00929942 Genuine Article#: FG608 Number of References: 72  
Title: ANALYSIS OF CONAS ENCODING THE 2 SUBUNITS OF CROTOXIN, A PHOSPHOLIPASE-A2 NEUROTOXIN FROM RATTLESNAKE VENOM - THE ACIDIC NON ENZYMIC SUBUNIT DERIVES FROM A PHOSPHOLIPASE-A2-LIKE PRECURSOR (Abstract Available)
- 10/67230 (Item 91 from file: 34) 00907533 Genuine Article#: FE925 Number of References: 139  
Title: EFFECTS OF SNAKE-VENOMS ON HEMOSTASIS (Abstract Available)
- 10/67231 (Item 92 from file: 34) 00799393 Genuine Article#: EX558 Number of References: 29  
Title: MODULATION OF TISSUE PLASMINOGEN-ACTIVATOR BIOSYNTHESIS BY PHOSPHATIDYLINOSITOL LIPOSOMES IN HUMAN FETAL LUNG FIBROBLASTS
- 10/67232 (Item 93 from file: 34) 00756237 Genuine Article#: EV178 Number of References: 36  
Title: PROTEINS THAT BIND CALCIUM IN A PHOSPHOLIPID-DEPENDENT MANNER
- 10/67233 (Item 94 from file: 34) 00745231 Genuine Article#: ER887 Number of References: 26  
Title: TRANSLLOCATION OF CA-2+-ACROSS LIPID BILAYER-MEMBRANE DUE TO DEFECTS INDUCED BY TELEOCIDIN (Abstract Available)
- 10/67234 (Item 95 from file: 34) 00716124 Genuine Article#: EQ046 Number of References: 36  
Title: INHIBITION OF PANCREATIC PHOSPHOLIPASE-A2 ACTIVITY BY UTEROGLOBIN AND ANTIFLAMMIN PEPTIDES - POSSIBLE MECHANISM OF ACTION (Abstract Available)
- 10/71173 (Item 34 from file: 34) DIALOG(R)File 34:SciSearch(R) Cited Ref Sci (c) 2004 Inst for Sci Info. All rts. reserv.  
07269008 Genuine Article#: 143YH Number of References: 93  
Title: Haemorrhagic factors from snake venoms II. Structures of haemorrhagic factors and types and mechanisms of haemorrhage  
Author(s): Mashiko H (REPRINT); Takahashi H  
Corporate Source: MEIJI COLL PHARM DIV CHEM HYG, SETAGAYA KU, 1-35-23 NOZAWATOKYO 154/JAPAN/ (REPRINT)  
Journal: JOURNAL OF TOXICOLOGY-TOXIN REVIEWS, 1998, V17, N4, P493-512 ISSN: 0731-3837 Publication date: 19980000  
Publisher: MARCEL DEKKER INC, 270 MADISON AVE, NEW YORK, NY 10016 Language: English Document Type: ARTICLE  
Abstract: It was revealed that almost all snake venom haemorrhagic factors (HF's) are metalloproteinases. Analysis of primary structures of HF's revealed that they share multi-domain structures. And they are divided into four major classes. These HF's damaged the micro blood vessel walls and cause local haemorrhage. Some HF's cause systemic, organ specific and species specific haemorrhage. This review describes the structures of HF's and autolytic activity of HF's. Types and mechanisms of haemorrhage caused by HF's are also described
- 10/71174 (Item 35 from file: 34) DIALOG(R)File 34:SciSearch(R) Cited Ref Sci (c) 2004 Inst for Sci Info. All rts. reserv.  
07229442 Genuine Article#: 1398C Number of References: 302  
Title: Snake venoms and the hemostatic system  
Author(s): Markland FS (REPRINT)  
Corporate Source: UNIV SO CALIF,SCH MED, CANC RES LAB 106, 1303 N MISSION RD/LOS ANGELES/CA/90033 (REPRINT)  
Journal: TOXICON, 1998, V36, N12 (DEC), P1749-1800 ISSN: 0041-0101 Publication date: 19981200  
Publisher: PERAMON-ELSEVIER SCIENCE LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, ENGLAND Language: English Document Type: REVIEW
- 10/71180 (Item 41 from file: 34) DIALOG(R)File 34:SciSearch(R) Cited Ref Sci (c) 2004 Inst for Sci Info. All rts. reserv.  
00244724 Genuine Article#: YE170 Number of References: 48  
Title: Snake venoms  
Author(s): Markland FS (REPRINT)  
Corporate Source: UNIV SO CALIF,SCH MED, CANC RES LAB 106, 1303 N MISSION RD/LOS ANGELES/CA/90033 (REPRINT)  
Journal: DRUGS, 1997, V54, 3, P1-10 ISSN: 0012-6667 Publication date: 19970000  
Publisher: ADIS INTERNATIONAL LTD, 41 CENTORIAN DR, PRIVATE BAG 65901, MAIRANGI BAY, AUCKLAND 10, NEW ZEALAND Language: English Document Type: ARTICLE  
Abstract: Snake venoms are complex mixtures containing many different biologically active proteins and peptides. A number of these proteins act on components of the haemostatic system in humans. The paper focuses on those venom constituents that affect the blood coagulation pathway, endothelial cells and platelets. Several highly purified venom enzymes have been used
- clinically as anticoagulants, and other venom proteins are being used in preclinical research to investigate their possible therapeutic potential.
- Haemostatically active components are distributed widely in the venom of many different snake species. In no case are all the components described below found in any single venom. Venom components can be grouped into several categories depending on their haemostatic effect. The following haemostatically active components are discussed in this chapter: enzymes that cause fibrinogen coagulation; enzymes that degrade fibrin(ogen); plasminogen activator; prothrombin activators; factor V activator; factor X activator; anticoagulant activities; enzymes with haemorrhagic activity; platelet aggregation inducers; and platelet aggregation inhibitors.
- 10/77203 (Item 64 from file: 34) DIALOG(R)File 34:SciSearch(R) Cited Ref Sci (c) 2004 Inst for Sci Info. All rts. reserv.  
03251150 Genuine Article#: NQ350 Number of References: 120  
Title: SNAKE-VENOMS AFFECTING THE HEMOSTATIC MECHANISM - A CONSIDERATION OF THEIR MECHANISMS, PRACTICAL APPLICATIONS AND BIOLOGICAL SIGNIFICANCE  
Author(s): MARSH NA  
Corporate Source: QUEENSLAND UNIV TECHNOL,SCH LIFE SCI,2 GEORGE ST,GPO BOX 2434/BRISBANE/QLD 4001/AUSTRALIA/  
Journal: BLOOD COAGULATION & FIBRINOLYSIS, 1994, V5, N3 (JUN), P399-410 ISSN: 0957-5235  
Language: ENGLISH Document Type: REVIEW  
Abstract: Snake venoms contain a rich variety of factors affecting the haemostatic mechanism which can be broadly classified possessing coagulant, anticoagulant and haemorrhagic activity. Coagulant enzymes include activators of blood coagulation factors II (prothrombin), V and X; anticoagulants include protein C activators, inhibitors of prothrombin complex formation and fibrinogenases which can be further classified according to their specificity for the alpha-, beta- and gamma-chains of fibrinogen. Intermediate between true coagulants and true anticoagulants are the thrombin-like enzymes which bring about clotting in vitro but defibrination (anticoagulation) in vivo. Snake venoms also affect platelets either by inducing or inhibiting platelet aggregation and cause haemorrhage via an action on platelets or via proteolysis of the blood vessel wall. Haemorrhagins also include metalloproteinases. This rich diversity of snake venom components affecting haemostasis has enabled a range of practical applications to be established including therapeutic anticoagulation with thrombin-like enzymes (Ancrod and Defibra) and laboratory tests for individual haemostatic factors (protein C, prothrombin, factor X and lupus anticoagulant). This broad spectrum of materials in snake venoms suggests some evolutionary advantage to the venom producer, not only for dispatching prey but as agents which 'spread' the venom toxins throughout the body and initiate digestion.)
- 10/77205 (Item 66 from file: 34) DIALOG(R)File 34:SciSearch(R) Cited Ref Sci (c) 2004 Inst for Sci Info. All rts. reserv.  
02955096 Genuine Article#: MF685 Number of References: 25  
Title: PURIFICATION AND CHARACTERIZATION OF PLATELET-AGGREGATION INHIBITORS FROM SNAKE VENOMS  
Author(s): TRIKHA M; ROTE WE; MANLEY PJ; LUCCHESI BR; MARKLAND FS  
Corporate Source: UNIV SO CALIF,SCH MED DEPT BIOCHEM & MOLEC BIOL,CRL 106/LOS ANGELES/CA/90033; UNIV CALIF,SCH MED DEPT BIOCHEM & MOLEC BIOL/LOS ANGELES/CA/90033; UNIV MICHIGAN,SCH MED DEPT PHARMACOL,N N ARBOR/MI/48109  
Journal: THROMBOSIS RESEARCH, 1994, V73, N1 (JAN 1), P39-52 ISSN: 0049-3848  
Language: ENGLISH Document Type: ARTICLE  
Abstract: Proteins that inhibit glycoprotein (GP) IIb/IIIa mediated platelet aggregation have been purified from the venom of two snake species. A small platelet aggregation inhibitor (pAI), multisquamatin (Mr=5,700), was purified from Echis multisquamatin venom by hydrophobic interaction HPLC and two steps on C18 reverse phase HPLC. A larger pAI, conortrostatin (Mr=15,000) was purified by a similar HPLC procedure from the venom of Agkistrodon contortrix contortrix. Both pAIs inhibit ADP-induced human, canine and rabbit platelet aggregation using platelet rich plasma (PRP). Multisquamatin has an IC50 of 97 nM, 281 nM and 333 nM for human, canine and rabbit PRP, respectively. Conortrostatin has an IC50 of 49 nM, 120 nM and 1,150 nM for human, canine rabbit PRP, respectively. In a competitive binding assay using 1-125-7E3 (a monoclonal antibody to GP IIb/IIIa) it inhibits platelet aggregation both conortrostatin and multisquamatin demonstrated GP IIb/IIIa specific binding to human and canine platelets. The IC50 for conortrostatin displacement of 7E3 binding to human and canine GP IIb/IIIa is 27 nM and 16 nM respectively and for multisquamatin it is 3 nM and 63 nM, respectively. Our results indicate that both pAIs inhibit platelet aggregation by binding with high affinity to GP IIb/IIIa.
- 10/77207 (Item 68 from file: 34) DIALOG(R)File 34:SciSearch(R) Cited Ref Sci (c) 2004 Inst for Sci Info. All rts. reserv.  
02716642 Genuine Article#: LY517 Number of References: 121  
Title: ACTION OF SNAKE-VENOM COMPONENTS ON THE HEMOSTATIC SYSTEM  
Author(s): HUTTON RA; WARRELL DA  
Corporate Source: JOHN RADCLIFFE HOSP NUFFIELD DEPT CLIN MED/OXFORD OX3 9DU/ENGLAND/; JOHN RADCLIFFE HOSP NUFFIELD DEPT CLIN MED/OXFORD OX3 9DU/ENGLAND/; ROYAL FREE HOSP,CTR HAEMOPHILIA/LONDON/ENGLAND/; UNIV LONDON SCH MED/LONDON/ENGLAND/; ROYAL FREE HOSP,DEPT HAEMATOL,HAEMOSTASIS UNIT/LONDON/ENGLAND/  
Journal: BLOOD REVIEWS, 1993, V7, N3 (SEP), P176-189 ISSN: 0268-960X Language: ENGLISH Document Type: REVIEW  
Abstract: Among the components in snake venom are a number which have profound effects (either stimulatory or inhibitory) on

relationships of several related proteins, and influence the synthesis of recombinant disintegrins, metalloproteinases and relate polypeptides.

1077230 (Item 91 from file: 34) DIALOG(R)File 34:SciSearch(R) Cited Ref Sci (c) 2004 Inst for Sci Info. All rts. reserv.  
00907533 Genuine Article# F9253 Number of References: 139  
Title: EFFECTS OF SNAKE-VENOMS ON HEMOSTASIS

Author(s): MEIER J, STOCKER K  
Corporate Source: PENTAPHARM LTD DEPT BIOL ENGELGASSE 109/CH-4002BASEL/SWITZERLAND/; PENTAPHARM LTD.RES & DEV/CH-4002 BASEL/SWITZERLAND/  
Journal: CRITICAL REVIEWS IN TOXICOLOGY, 1991, V21, N3, P171-182 Language: ENGLISH Document Type: REVIEW  
Abstract: Proteins found in venoms, especially of the Viperidae snake family, exert, often with a narrow specificity, activating, inactivating, or other converting effects on different components of the hemostatic and fibrinolytic systems; respectively. Some purified snake venom proteins have become valuable tools in basic research and in diagnostic procedures in hemostaseology "Procoagulant" as well as "anticoagulant" venom components have been identified in vitro test systems. "Procoagulant" snake venom components may cause in vivo, upon massive application as in the case of snake-bite of small prey animals, intravascular coagulation leading to circulatory arrest and rapid death. Smaller doses of procoagulant venom components applied to large organisms as in the case of snake-bite accidents in humans, may cause a consumption coagulopathy with localized or generalized bleeding. Highly purified, specific fibrinogen coagulant venom proteinases are used in human medicine to produce therapeutic defibrinogenation. These practically nontoxic venom enzymes may act synergistically with other components aggravating their toxic effects.

176/1 (Item 1 from file: 155) 16640847 PMID: 14646104  
Purification, partial characterization and crystallization of acuelin, a protein containing both disintegrin-like and cysteine-rich domains released by auto-proteolysis of a P-III-type metalloproteinase AaH-IV from Agkistrodon acutus venom. Dec 2003

176/2 (Item 2 from file: 155) 16113331 PMID: 15041737  
Anti-angiogenic activity of contortrostatin, a disintegrin from Agkistrodon contortrix snake venom. 2003

176/3 (Item 3 from file: 155) 14299771 PMID: 10204078  
Cloning, expression, and characterization of a cDNA encoding snake venom metalloproteinase. Mar 1999

176/4 (Item 4 from file: 155) 13697372 PMID: 9392519  
Analysis of a cDNA sequence encoding a novel member of the snake venom metalloproteinase (elastase) from Vipera lebetina snake venom. Jul 5 1996  
family from Agkistrodon contortrix latincinctus. Oct 17 1997

176/5 (Item 5 from file: 155) 13023949 PMID: 8694817  
cDNA cloning and deduced amino acid sequence of fibrinolytic enzyme (elastase) from Vipera lebetina snake venom. Jul 5 1996

176/6 (Item 6 from file: 155) 12669269 PMID: 7793974  
Molecular cloning and sequence analysis of cDNAs for metalloproteinases from broad-banded copperhead Agkistrodon contortrix latincinctus. Ju 1995

176/7 (Item 7 from file: 155) 12509220 PMID: 14517425  
Contortrostatin, a dimeric disintegrin from Agkistrodon contortrix snake venom, inhibits angiogenesis. 1999

176/8 (Item 8 from file: 155) 12264706 PMID: 12615062  
The snake venom disintegrin salmosin induces apoptosis by disassembly of focal adhesions in bovine capillary endothelial cells. Mar 14 2003

176/9 (Item 9 from file: 155) 12122827 PMID: 12454474  
Purification, crystallization and preliminary X-ray analysis of the disintegrin contortrostatin from Agkistrodon contortrix snake venom. D 2002

176/10 (Item 10 from file: 155) 11732363 PMID: 11910184  
A novel snake venom disintegrin that inhibits human ovarian cancer dissemination and angiogenesis in an orthotopic nude mouse model. May-D 2001

176/11 (Item 11 from file: 155) 10835276 PMID: 10966001  
Contortrostatin, a dimeric disintegrin from Agkistrodon contortrix snake venom, inhibits breast cancer progression. Jun 2000

176/12 (Item 12 from file: 155) 10820700 PMID: 10944460  
Suppressive mechanism of salmosin, a novel disintegrin, in B16 melanoma cell metastasis. Aug 18 2000

176/13 (Item 13 from file: 155) 10586282 PMID: 10691973  
Purification, cloning and sequence analysis for pro-metalloproteinase- disintegrin variants from Deinagkistrodon acutus venom and subclassification of the small venom metalloproteinases. Mar 2000

176/14 (Item 14 from file: 155) 10523713 PMID: 10623623  
Contortrostatin, a homodimeric disintegrin, binds to integrin  $\alpha$ 5 $\beta$ 1. Jan 7 2000

hemostatic mechanisms, including coagulation, fibrinolysis, platelet function and vascular integrity. As a consequence, human victims of snakebite may suffer severe and sometimes fatal haemorrhagic and/or thrombotic sequelae.

Many of these venom components have been isolated and their precise mechanisms of action established. Apart from direct fibrinolysins, procoagulants predominate, most of these exerting their effect late in the clotting cascade, activating factor X or prothrombin or directly converting fibrinogen to fibrin. Some of the procoagulants are, or have the potential to be, used as therapeutic agents.

Some venom components have been put to use as laboratory reagents for diagnostic purposes or for characterising molecular defects of haemostasis, although because they often have unphysiological actions, results must be interpreted with caution. These and other useful constituents e.g. protein C activator and platelet aggregating agents are discussed.

1077212 (Item 73 from file: 34) DIALOG(R)File 34:SciSearch(R) Cited Ref Sci (c) 2004 Inst for Sci Info. All rts. reserv.  
02250099 Genuine Article# JN644 Number of References: 88  
Title: EFFECT OF SOME ANIMAL VENOMS AND SECRETIONS ON THE HEMOSTATIC MECHANISM  
Author(s): MARVAL E; AROCHAPINANGO CL  
Corporate Source: CENT UNIV VENEZUELA/FAC MED/ESCUELA BIOANAL/CARACAS/VENEZUELA/; VIC,CTR MED EXPTL/CARACAS 1020A/VENEZUELA/  
Journal: INTERCIENCIA, 1993, V18, N1 (JAN-FEB), P10-15 ISSN: 0378-1844 Language: SPANISH Document Type: ARTICLE  
Abstract: The venoms and secretions from some animals contain substances which act on the hemostatic mechanism, activating or inhibiting the coagulation pathways or activating the fibrinolytic system. The venoms of snakes are the best known and several enzymes which act on different steps of the cascade have been identified, for example the venoms of the genera Bothrops and Agkistrodon that have thrombin-like enzymes; Notechis Scutatus and Oxyurana Scratelatus that act on the prothrombin, only in its carboxylated form the first, and with the aid of Factor V the second. In the saliva of vampire bats Desmodus rotundus and Desmodus rugus a plasminogen activator has been identified. Invertebrates also have substances that act on the hemostatic system: the leeches Hirudo medicinalis have antithrombin activity, the Hementiera guilliani fibrinolytic activity and a platelet aggregation inhibitor. Spiders such as Loxoceles reclusa, produce disseminated intravascular coagulation and the caterpillars of the Lonomia achelous. A Saturniidae widely, distributed in South America, induces a severe bleeding disorder in humans.

Fibrinolytic activities (direct and plasminogen activator) have been identified in their biological fluids as well as prothrombin and Factor V activator in addition to a Factor XIII inhibitor. The understanding of the mechanism of action of some of these venoms has been very useful in the production of diagnostic reagents, for assays of Prothrombin, Factor X, Protein C, Fibrinogen and therapeutic drugs (Hirudin, Bathroxobin, Ancrod) as well as to better learn of their physiological pathways.

1077217 (Item 78 from file: 34) DIALOG(R)File 34:SciSearch(R) Cited Ref Sci (c) 2004 Inst for Sci Info. All rts. reserv.  
01939552 Genuine Article# JN464 Number of References: 201  
Title: CHARACTERIZATION OF SNAKE-VENOM COMPONENTS ACTING ON BLOOD-COAGULATION AND PLATELET - FUNCTION

Author(s): OUYANG C, TENG CM, HUANG TF  
Corporate Source: NATL TAIWAN UNIV,COLL MED DEPT PHARMACOL/TAIPEI10018/TAIWAN/  
Journal: TOXICON, 1992, V30, N9 (SEP), P945-966 ISSN: 0041-0101 Language: ENGLISH Document Type: REVIEW  
Abstract: Snake venoms can affect blood coagulation and platelet function in various ways. The physicochemical properties and the mechanisms of actions of the snake venom components affecting blood coagulation and platelet function are discussed.

1077221 (Item 82 from file: 34) DIALOG(R)File 34:SciSearch(R) Cited Ref Sci (c) 2004 Inst for Sci Info. All rts. reserv.  
01681418 Genuine Article# HR719 Number of References: 127

Title: STRUCTURAL DOMAINS IN VENOM PROTEINS - EVIDENCE THAT METALLOPROTEINASES AND NONENZYMATIC PLATELET-AGGREGATION INHIBITORS (DISINTEGRINS) FROM SNAKE-VENOMS ARE DERIVED BY PROTEOLYSIS FROM A COMMON PRECURSOR

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Corporate Source: VIRGINIA COMMONWEALTH UNIV,MED COLL VIRGINIA,DEPT BIOCHEM & MOLECBIOPHYS/RICHMOND /VA/23298

Journal: TOXICON, 1992, V30, N3 (MAR), P265-293  
Language: ENGLISH Document Type: REVIEW

Abstract: A comparison of the structures of a precursor of trigramin (a disintegrin), metalloproteinases, disintegrins and related proteins, suggests the existence of common precursors for metalloproteinases and disintegrins. The proposed common precursor and related proteins have four distinct domains (A-D). Domain B contains the metal binding site and the catalytic Glu residue, which comprise the active site of metalloproteinases. Domain C contains the Arg-Gly-Asp sequence and hence the ability to inhibit the activity of integrins. Domains A and D are unique and their biochemical or biological activity is unknown. The proposed precursor can be proteolytically cleaved at several interdomain sites, releasing the disintegrins and metalloproteinases. A survey of more than 100 venom metalloproteinases and disintegrins strongly supports the existence of precursor proteins and their structural domains. This is also upheld by the co-occurrence of metalloproteinases and disintegrins in the venoms of several genera of crotalid and viperid snakes. The likelihood of intradomain disulfide bridges, and accessibility of all interdomain cleavage sites also supports our contention. The susceptibility of the cleavage sites appears to be determined by nearby disulfide bridges and glycosylation. Recognition of the proposed structural domains of venom proteinases should help clarify the structure-function

- 17/6/15 (Item 15 from file: 155) 10162439 PMID: 7520832  
Confortostatin, a snake venom disintegrin, inhibits beta 1 integrin-mediated human metastatic melanoma cell adhesion and blocks experimental metastasis. Sep 15 1994
- 17/6/16 (Item 1 from file: 5) 0014238230 BIOSIS NO.: 200300196949  
Anti-tumor agent comprising salmosin as an active ingredient. 2003
- 17/6/17 (Item 2 from file: 5) 0012650199 BIOSIS NO.: 200000368512  
Salmosin, a novel disintegrin, suppresses tumor metastasis in mice. 2000
- 17/6/18 (Item 3 from file: 5) 0011666310 BIOSIS NO.: 199800460557  
Cloning, expression and sequence analysis of a new metalloproteinase/ disintegrin from *Agkistrodon contortrix latiscinctus*. 1998
- 17/6/19 (Item 4 from file: 5) 0010342856 BIOSIS NO.: 199698810689  
Inhibitory effects of snake venom proteins on the binding of breast cancer cells to extracellular matrix components. 1996
- 17/6/20 (Item 5 from file: 5) 0009907696 BIOSIS NO.: 199598375529  
Molecular cloning and sequence analysis of cDNAs for metalloproteinases from broad-banded copperhead *Agkistrodon contortrix latiscinctus*. 1995
- 17/6/21 (Item 6 from file: 5) 0009644715 BIOSIS NO.: 199538112548  
A snake venom disintegrin that inhibits beta 1 integrin-mediated human metastatic melanoma cell adhesion, and blocks experimental metastasis. 1994
- 17/6/22 (Item 1 from file: 34) 08852852 Genuine Article# 3357Q Number of References: 15  
Title: Molecular cloning and sequence analysis of cDNA encoding acetylcholinesterase C, a hemorrhagic metalloproteinase, from *Agkistrodon acutus* (ABSTRACT AVAILABLE) Publication date: 20000700
- 17/7/10 (Item 10 from file: 155) 11732353 PMID: 11910184  
A novel snake venom disintegrin that inhibits human ovarian cancer dissemination and angiogenesis in an orthotopic nude mouse model.  
Markland F S; Shieh K; Zhou Q; Golubkov V; Sherwin R P; Richters V; Sposto R  
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Haemostasis (Switzerland) May-Dec 2001; 31 (3-6) p183-91, ISSN 0301-0147 Journal Code: 0371574 Document type: Journal Article Languages: ENGLISH Main Citation Owner: NLM Record type: Completed  
OVCAR-5 is a human epithelial carcinoma cell line of the ovary, established from the ascitic fluid of a patient with progressive ovarian adenocarcinoma without prior cytotoxic treatment. The unique growth pattern of ovarian carcinoma makes it an ideal model for examining the anticancer activity of conortostatin (CN), a homodimeric disintegrin from southern copperhead venom. FACS analysis revealed that OVCAR-5 is integrin alphavbeta3 negative, but alphavbeta5 positive. CN effectively blocks the adhesion of OVCAR-5 cells to several extracellular matrix proteins and inhibits tumor cell invasion through an artificial basement membrane. In a xenograft nude mouse model with intraperitoneal introduction of OVCAR-5 cells, intraperitoneal injection of CN was used for therapy. Tumor dissemination in CN-treated versus control groups was studied by gross examination, and antiangiogenic potential was examined by factor VIII immunohistochemistry and image analysis. CN not only significantly inhibited ovarian cancer dissemination in the nude mouse model, but it also dramatically prevented the recruitment of blood vessels to tumors at secondary sites. Copyright 2002 S. Karger AG, Basel Record Date Created: 20020322 Record Date Completed: 20030902